Clinical Lecture
ON THE
CURABILITY OF PULMONARY PHTHISIS.

Delivered at the Royal Infirmary, Manchester,

BY THOMAS HARRIS, M.D. LOND., M.R.C.P.,
SENIOR ASSISTANT PHYSICIAN TO THE INFIRMARY, AND PHYSICIAN TO THE HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT, MANCHESTER.

THE majority of physicians at the present day believe in the curability of the most common variety of pulmonary phthisis—the tubercular. But although there is almost unanimity in that belief, we are not nearly so agreed as to the frequency with which such a favourable result ensues. There are doubtless a large number, who have had an extensive clinical and pathological experience, who, although accepting the view of the curable nature of the disease, deny that it is a common result; whilst others with similar opportunities for gaining experience believe that it is no uncommon thing for phthisis to end in recovery. To these two groups may be added a group of pathologists who have been guided more especially by the experience of the post-mortem room as to the frequency with which signs of involuted tubercle, in the form especially of old caseous and calcareous foci, are found in the lungs of those who have died from various diseases and injuries. This class of pathologists may maintain that pulmonary phthisis not occasionally, but very frequently, becomes arrested, and even cured, when it is limited and in a very early stage. It is extremely difficult in a disease like phthisis, which may run a very prolonged course, during which temporary improvements of longer or shorter duration take place, to solve the problem as to the frequency with which a favourable result ensues. We may, however, by considering the evidence on which our belief in the curable nature of the malady is founded, arrive at some idea, although not a very exact one, as to the frequency of a favourable termination of cases of consumption. The evidence of the curable nature of tubercular disease of the lungs is in part clinical, in part pathological. The clinical experience has been obtained by watching cases of phthisis over a number of years, and also by the consideration of the history of cases of phthisis, from a study of which we frequently find that the disease was arrested for a longer or shorter period. The pathological data consist in the frequency with which signs of obsolete tubercle are observed in the lungs of persons dying from different diseases.

We possess many records by reliable physicians of the cure of cases of phthisis, cases where the physical signs and the symptoms have been very definite, and where we could not doubt the existence of phthisis, and in which at a later date all symptoms and signs of activity of the disease have disappeared and remained absent for a sufficiently long period to warrant the conclusion that the case was not one of temporary arrest only, but of actual cure. Such evidence has in some cases been still further strengthened by subsequent post-mortem examination, which has proved that the phthisis had become perfectly arrested. Such cases are now fairly numerous and form valuable evidence of the curable nature of consumption, and encourage not only unfortunate sufferers from that disease, but show that certain lines of treatment, especially the climatic one, have the best of evidence, a favourable result, in their support.

Another piece of clinical evidence is one to which less attention has been drawn; but it is one of considerable value. Careful inquiry into the previous health of consumptive patients not unfrequently elicits the fact that at some period before the illness for which they are consulting us began they had some chest trouble, from which they apparently entirely recovered and had a period of good health between that affection and the onset of their present illness. In many such cases we are able to feel fairly confident, from the details given of the nature of the attack, that the illness from which they thought they had recovered was of a tubercular nature, which had become quiescent for the time. The former attack has usually not been recognised as of a phthisical nature, but has been believed to be bronchitis, inflammation of the lungs, or even some disease unconnected with the respiratory apparatus—for instance, typhoid fever. Such cases of unrecognised attacks of localised tubercular disease in the lung are probably far from being uncommon.

The pathological evidence of the curability of phthisis is even stronger than the clinical. Nearly everyone who has had much experience in pathological work has noticed the frequency with which old caseous and calcareous foci, associated with more or less fibrous tissue, are found in the lung apices of those who have died from various diseases. There can be little doubt that these lesions represent foci of former active tubercular disease which has become quiescent. It is difficult to be certain as to the exact frequency with which such signs of involuted tubercle are found, as the statements of different observers differ considerably as to their frequency. As a result of some observations made in the post-mortem room of the Manchester Royal Infirmary during the twelve months from Oct. 1st, 1887, to Sept. 30th, 1888, I found that no less than 38·84 per cent. of the cases of persons above twenty years of age presented such lesions.[1] In other words, 38·84 per cent. of all the bodies over twenty years of age which were examined had had one or more foci of active tubercular disease which had become quiescent, and in the majority of instances such lesions had nothing to do with the cause of death. This high figure bearing upon the curability of phthisis is certainly remarkable. The results obtained show that local tuberculosis of the lung is not only common, but that it very frequently ceases to extend, and becomes quiescent. There are certain facts in connexion with these caseous and calcareous foci which have an important bearing upon the question under consideration, and must be considered. *All* the fibrous cicatrices with and without caseous or calcareous foci which are found in the lungs, and which are regarded as indicating former active tubercular disease, are not perfectly quiescent. Many, which to the naked eye appear quiescent, are found on microscopical examination to show signs of activity at their periphery, and cannot therefore be regarded as examples of involuted tubercle, but rather as very slowly progressing tubercular foci. In addition, those foci which contain caseous material which is not perfectly calcified are a decided source of risk to the person in whose lungs they exist. They may, and probably not unfrequently do, set up either an extensive destructive pulmonary tuberculosis or are the source of infection for a general acute miliary tuberculosis. This danger is undoubtedly a real one, as post-mortem examination, especially in cases of acute tuberculosis, occasionally clearly proves. This danger of a local or general infection from these small centres in the lungs is readily understood when we know that tubercle bacilli have frequently been found[2] in such old caseous foci, and that tuberculosis has been repeatedly set up in animals by inoculation with caseous material from such foci.[3] Cases where no tubercle bacilli can be found may yet be capable of producing tuberculosis in consequence of the presence of the spores of those bacilli which cannot be recognised by our usual methods of staining micro-organisms. From the teaching of experimental pathology[4] we are compelled to regard all old tubercular foci in the lungs which contain non-calcified caseous material as dangerous to the organism. Only those foci can be regarded as perfectly healed, and as true examples of cured phthisis, which are represented either by fibrous tissue alone or by completely calcified caseous matter. Caseous foci which are imperfectly or not at all calcified are probably always a source of danger, and may at any time give rise to a destructive pulmonary tuberculosis or a general acute miliary affection.

In considering the foci of obsolete tubercle in the lungs we cannot forget that the area of disease is nearly always exceedingly small. It is not common for the caseous or calcareous focus to be larger than a walnut, and usually it is much less than that. It is probable that at an earlier date it was more extensive, and that in consequence of the

[1] A detailed account of the result of this investigation, with an attempt to explain the discrepancy between different observers as to the frequency of healed phthisis, was published in the British Medical Journal, December, 1889.

[2] Déjerine: Recherches des Bacilles dans la Tuberculose Calcifiée et Caséo-calcifiée, Revue de Méd., vol. iv., p. 921, 1884.

[3] Kurlow: Ueber die Heilbarkeit der Lungentuberculose, Deutsches Archiv für Klin. Med., vol. xl., p. 487, 1889.

[4] Harris: British Medical Journal, December 1889. Kurlow: Ibid.

shrinking of the fibrous tissue which was formed its dimensions were considerably reduced. We have no means of estimating the number of cases from among these instances of obsolete tubercle, where distinct symptoms and signs of phthisis at an antecedent date were present. Probably, however, the great majority of cases had occasioned neither symptoms nor physical signs of phthisis, whilst a minority had done so. At the same time it is probable that the early physical signs of phthisis are due to the surrounding catarrh quite as much as, if not more than, to the focus of tubercular disease itself. And as such simple catarrh varies in extent and may completely disappear without leading to further destructive changes in the lung, we can easily understand that what appears to us as a focus of obsolete tubercle, too small to produce any signs or symptoms, may have given very definite indications of its presence at some prior date.

There is yet another consideration which affords evidence of the curable nature of pulmonary tuberculosis. Cases of phthisis differ very much in their acuteness, in the rapidity with which the destructive changes in the lungs are effected, and consequently the duration of life likewise varies. In some the destructive processes are very acute, and the life of the victim is a very short one; in others the destructive change is a slow one, and life is prolonged may be for very many years. In the former class of cases, the acute ones, we find that very little fibrous tissue has been formed in the lungs, whilst the softening is very marked and has proceded rapidly. In the latter class, the chronic cases, we find that much fibrous tissue has been formed, and in some instances an excessive amount, so much that during life the case has presented many of the features of true fibroid or non-tubercular phthisis. We cannot avoid the conclusion, from a consideration of the course of the disease and the changes found in the lungs, that these chronic cases are really instances where there have been attempts to arrest the destructive processes, and that the fibrous tissue really represents a conservative change, an attempt to effect a cure. Many of these cases do become arrested for the time, as a careful consideration of the course and the clinical history will often show. All such fibroid changes in cases of pulmonary tuberculosis are to be regarded as favourable ones, and the more marked they are the more slow has been the progress of the disease and the longer has life been maintained. The frequency therefore with which such cases of chronic tuberculosis, accompanied by the formation of much fibrous tissue in the lungs, are met with is an argument of considerable weight in favour of the curability of phthisis.

In reference to this question of the curability of consumption, we may recognise three classes of cases:—1. Cases of very limited tubercular disease of the lung, where the lesion is small, and is eventually replaced either by fibrous tissue alone or by fibrous tissue and a completely calcified caseous focus. As far as our experience goes, such cases are always instances of very localised and very small foci, and the disease is never an extensive one. These cases are the only ones which can be considered as perfectly healed, and where the lesion (cicatrix or calcareous focus) which remains does not involve a risk to the possessor, such lesions, so far as we know, not being liable to set up either a local or general tuberculosis. These lesions are not unfrequently found in the lungs of persons who have died of various diseases and from injuries, but it is not known how frequently the tubercular change has been extensive enough to cause distinctive signs and symptoms of pulmonary tuberculosis. Probably the majority of the persons in whose bodies such foci of obsolete tubercle are found have at no period of their lives presented the usual signs or symptoms of consumption, the lesion having been very small. 2. Cases similar to the above, but where the remains of the tubercular disease is not at all or only imperfectly calcified. Although the physician, from the examination of the chest and the consideration that all the symptoms of phthisis have disappeared, may regard such cases as cured, they cannot be so considered by the pathologist. The latter knows from the microscopical examination of such foci, and from the results of inoculation experiments with animals, that such foci are dangerous, and may at any time give rise to further destructive changes in the lungs or to general miliary tuberculosis. They are cases, however, in which if the person remains under favourable conditions for preserving health, may pass on to a complete cure, and then deserve a place in Class 1. 3. Cases which run a prolonged course often with periods when the disease remains quiescent and which are characterised pathologically by the formation of much fibrous tissue. It is some of these cases which are so misleading to the medical man, and cause the hopes of the sufferer not only to be raised, but cause him to believe that he is cured. This feeling is a consequence of the disease having become either temporarily arrested, or, as is probably more frequently the case, by its progressing extremely slowly and being associated with few physical signs and symptoms of extending disease. Very many cases of phthisis come under this heading, and it is rare for a case of chronic phthisis to be continually progressive; nearly all such forms of the disease are associated with periods of relative good health when the disease appears to be quiescent. The fact that many cases of phthisis belong to this class renders any conclusions as to the good effects of any particular treatment so fallacious. The enthusiastic therapeutist is very prone to conclude that the favourable results are the consequence of the treatment adopted, and to forget that the favourable symptoms and signs may be explained as manifestations of the natural course of the disease. The history of the treatment of pulmonary tuberculosis is full of such fallacies.

From a consideration of the above classes it follows that some cases of phthisis are completely cured, but that the disease in such instances has never been a very extensive one. The majority of cases of phthisis we are compelled to consider belong to the last-mentioned classes, and consequently to be cases which often show a tendency to cure, but rarely perfectly attain that end. The tendency, however, in very many cases of phthisis is towards arrest, and it is the evidence on this point, together with the absolute proof which we have that in some cases a complete cure does result, that gives us encouragement to persist in treatment, and warrants us in holding out good hopes of recovery to the unfortunate sufferers in the early stages of the disease.

ON KOCH'S TREATMENT IN TUBERCULOSIS OF THE LUNG AND IN LUPUS VULGARIS.

BY G. A. HERON, M.D., F.R.C.P. LOND.,
PHYSICIAN TO THE CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST.

(*Concluded from page 922.*)

Increase and Extension of certain Physical Signs during the Use of Tuberculin.

IN many of the cases there was noticed increase of the mucous râles after the use of the remedy, when their then condition was compared with what it had been before treatment was commenced. The increase was expressed in this, that the moist sounds became certainly coarser, and there seemed to be more of them at the site of the disease. Also, in parts of the lung where certainly no evidence of the existence of disease had been observed before tuberculin was used, there were noticed thereafter, in many instances, crepitations which were undistinguishable from those usually heard over the site of early tuberculosis of the lung. This was observed in several instances in those patients who were suffering from tuberculosis affecting apparently one lung only, and in them it was often observed about the apex of the lung which had seemed healthy. These features were noticeable after a reaction had set in, and they continued probably for twenty-four or thirty-six hours. It was hardly possible to be sure as to the period of their duration, because as soon as the temperature fell to the normal limit, another injection of tuberculin was given, and then these physical signs usually repeated themselves. In most of these instances the new signs were noticed to disappear as the treatment progressed, but in exceptional instances they certainly remained for one or two weeks after the beginning of treatment; though even in these cases the newly developed sounds, it was noticed, always rapidly diminished in amount and in extent. In no case did these new physical signs exist when the patient left the hospital. I was able to satisfy myself that these new physical signs were sometimes, but not always, accompanied with increase of dulness on percussion. These conditions of lung may be reasonably

explained by comparing what probably takes place there with what we see going on in and around patches of lupus vulgaris. The marked swelling of the affected parts, and of apparently healthy tissue for some distance from them, which forms so familiar a characteristic of the effect of tuberculin on this skin disease, may very well have its counterpart in the tubercular lung, and this would account, it seems to me, for all these new physical signs, although it is difficult to understand why evident dulness on percussion should not always form one of them. In parts distant from the first recognised lesion of the lung, and having no continuity of tissue with it—as, for instance, the apex of the opposite lung,—it may very well be the case that the existence in them of centres of disease, not detectable by the stethoscope, explains the reason why, when tuberculin acts, new patches of crepitation are developed there. It is only reasonable to believe that in every case of tuberculosis of the lung there are, especially in the beginning of the disease, affected portions of tissue which do not convey the evidence of their condition to our senses.

Skin Eruptions.

The patient L. F——, already mentioned, was the only one under my care who showed that peculiar skin eruption which Dr. Radcliffe Crocker has so well described in THE LANCET of Nov. 22nd, 1890. She had it on two occasions early in her course of treatment. There was nothing in these attacks to distinguish them from the many others like them, that have been often mentioned in connexion with the use of tuberculin. Another patient, A. H——, a woman aged twenty-eight, had tuberculosis of about one-half of each of her lungs, with cavity at the apex of the right lung. After she had been twenty-nine days under treatment, and had received twenty-two injections of the remedy, there appeared a purpuric rash, which affected in patches her thighs and legs from the groins to the ankles. It began with small groups of papules, which I noticed in one or two instances were at first colourless, but gradually became red or reddish-brown in colour. Between the groups—they did not lose their colour on pressure—was apparently healthy skin, and at first the little groups of papules varied in size from that of a pin's head to that of a farthing. At the same time that this eruption first appeared, there was slight tenderness and swelling in the right wrist, and at the outer and back part of the right elbow there was a little puffiness, with bluish discolouration. Between the radius and ulna, about half-way down the right arm at its posterior aspect, there was distinct swelling, but without tenderness. There was also pain in both knee-joints, and in the legs, and in the left elbow. In four days both ankles were swollen, and there was swelling of the right forearm in front, in its upper third. The right arm at the level of the swelling measured half an inch more than the left one. There was no evidence of abnormality in the liver or the spleen. On the sixth day these swellings disappeared, and the rash, which had meanwhile become confluent all over the lower limbs, began to fade. On the seventh day after the appearance of the rash there was slight puffiness over the forehead, extending from the middle of the left to the outside of the right orbit, and from above the eyebrows to the roots of the hair, and measuring 4½ in. by 2 in. The puffiness had more the appearance than the feeling of a swelling, and was without discolouration of skin. This swelling disappeared in two days, and did not return. The hæmorrhagic rash, which had seemed to fade for a short time, recurred, and covered practically the whole of the lower limbs. In this condition the patient, at her own wish, returned to her home. She wrote to me on April 8th, saying: "Occasionally the rash reappears, and when it does I am unable to walk about for a day or two, but that has only happened twice during the six weeks I have been at home." On one occasion only was albumen detected in this patient's urine, and then there was but a mere trace of it. Her urine as a rule amounted to between 35 oz. and 50 oz., and presented no feature of special interest. It was examined three or four times a week. This woman received no injection after the purpuric rash appeared. Her highest dose of tuberculin was eight milligrammes, and she had eight marked reactions in response to the twenty-two doses given to her.

Condition of Urine.

It may be convenient to state at this point, that only in eight of these thirty-seven cases was albumen found in the urine, and its presence was always temporary. No observation of consequence was made when the urine was examined under the microscope.

Other Complications.

Of these there were but three of any importance. A girl, whose case is referred to in the journals under the initials H. D., whose age was fourteen years, received on the twenty-first day of treatment a dose of 8 mgr. of the remedy, and to it there was no symptom of reaction. On the day following the girl's temperature began to rise, and no reason for this could be found. It was a rule in the wards, that when a patient who was using tuberculin showed any important symptom which could not be readily accounted for, then, at once, the use of the drug was stopped. To that rule there was never an exception. Accordingly, the treatment was discontinued whenever this unexplained rise of temperature was noted. This girl developed pleurisy of the left side, with a moderate amount of effusion; and it ran an ordinary course. In a fortnight the treatment was resumed and continued until thirty-six injections had been given, the last three of these having been doses of 100 mgr. each. The girl had abundant tubercular bacilli in her sputa, and both of her lungs were tubercular, the infection extending, without excavation of lung tissue, on the left side to about the level of the fourth rib in front and the sixth one behind, and on the right side to about the level of the second rib in front, and behind to about the line of the spine of scapula. This patient did very well; and I hope there has been an opportunity for you to examine her to-night. Another complication occurred in the case of a girl (S. M——), eighteen years of age, who had coarse râles over the upper half of her left lung, in front and behind, and a slighter affection of her right one. She, after having been two weeks under treatment, and on the day after she had received her ninth injection, developed a pneumothorax of the left side. She blamed the treatment for this condition, and in accordance with her own wish she was not again submitted to the injections. In a few days she passed under the care of my colleague, Dr. Eustace Smith, whose patient she had previously been, and made a good recovery so far as the pneumothorax is concerned. With regard to the cases of laryngeal tuberculosis, they are too few in number amongst these patients to justify a decided opinion being formed about them in connexion with the use of tuberculin. It is, however, a fact that not one of these cases did well as regards the throat condition; indeed one of them, the man referred to in the table under the initials A. D., aged twenty-seven, became rapidly worse while under that treatment. Mention is made in the table of a prominent part that was played by the appearance of a hectic condition in certain cases. Of course patients with tuberculosis of the lungs frequently undergo exacerbations of temperature. Dr. Chaplin, the resident medical officer at Victoria-park Hospital, kindly looked up for me one hundred ordinary cases of phthisis, which had not been treated by Koch's method. He found that during a residence of six weeks in hospital eight of the hundred had exacerbations of temperature. It will be noticed that, with one exception, all my patients who showed hectic symptoms had done so before treatment was commenced. So far as this experience goes, it merely shows that tuberculin did not cure the hectic state of these patients. In all the cases where it occurred, in these patients, the exacerbation of temperature, after lasting for a varying number of days, gradually passed off. But, undoubtedly, it showed its usual tendency to recur, in spite of tuberculin, whether given in large or small doses. In the case of one patient, A. H——, we had her blood examined by Ehrlich's test while she was undergoing an attack of marked hectic, and at the height of her purpuric eruption, but no tubercular bacilli were observed, although very careful search was made for them.

In the table submitted for your inspection I have divided my patients into three classes. In the first class are placed those who come within the limits, as I understand them, of Koch's category of those consumptives in whom cure might reasonably have been hoped to follow the use of the remedy. I cannot say that any one of my patients has been cured beyond danger of relapse. Nor did Koch himself regard such cases, even when the best results had been obtained from treatment, as safe from relapse. He emphasises that opinion of his very strongly in his well-known paper of Nov. 13th of last year. In my second class of cases—those designated as being in the second stage—I include patients whose conditions of lung disease place them outside of that class of people who are suffering from tuberculosis of the

lung in its commencement. The physical signs of their disease, and their general symptoms, showed that without any evidence of cavity being detectable they had considerable tracts of lung tissue involved in the tubercular process. (Figs. 1 and 2.) In my third class are those who had evidence of cavity in their lungs. In every patient of all three classes, judging from general symptoms and some cough and night sweats, and by a material, and sometimes very marked, increase in the patient's sense of freedom of breathing power. It was remarkable how several of these patients themselves observed this indication of improvement in their condition, and drew attention to the fact that they could walk about the hospital grounds for an hour or so, and then go up to their wards without once

FIG. 1.

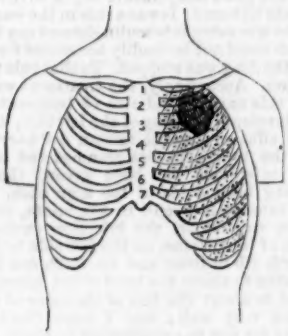
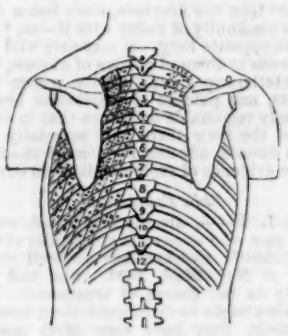


FIG. 2.



Figs. 1 and 2 graphically represent the condition of G. M——, on the first page of the tables, after a course of treatment, on April 7th.

FIG. 3.

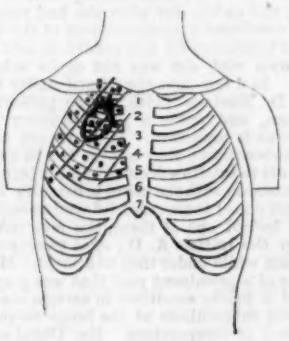


FIG. 4.

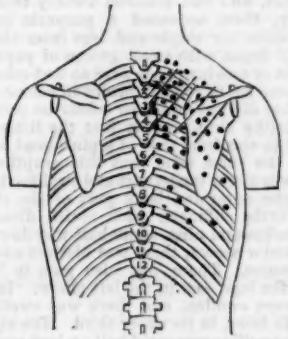


FIG. 5.

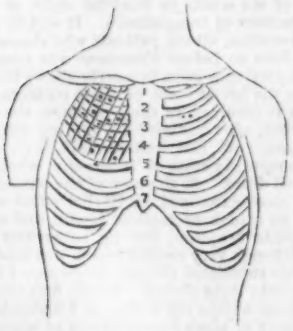
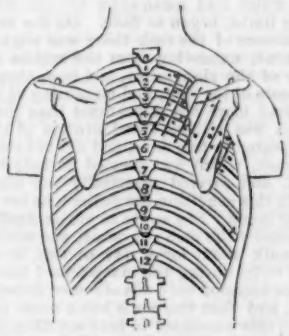


FIG. 6.



Figs. 3 and 4 represent the condition of A. D——, aged forty, the fourth case in the second page of the tables, at the beginning of the treatment, and Figs. 5 and 6 the condition of the same patient on April 7th.

from physical signs, the tubercular process was not tending towards cure, nor was it stationary before treatment was commenced. The contrary of these conditions obtained in every instance. The table indicates that a certain number of these patients have improved in health—some more, some less—under the use of tuberculin. (Figs. 3, 4, 5, and 6. This improvement was best manifested by a gradual disappearance of trouble-stopping to rest by the way because of their shortness of breath, and without being subject to fits of severe cough after the exertion of coming upstairs. Before treatment these patients had been unable to walk even upstairs to the wards without stopping several times on the way to cough and rest.

Then, as regards the evidences of improvement which had their expression in the physical signs of thes

CASES OF TUBERCULOSIS OF THE LUNG.

Patients' initials.	Age.	Sex.	Condition of disease.	Tubercular bacilli.	Sputum decreased.	No. of injections.	Highest dose in milligrs.	No. of reactions.	Complications.	Weight.		Duration of treatment.	Results.	Remarks.
										Gained.	Lost.	Days.		
F. S.	21	M.	1st stage.	Very many.	From 2 dr. .. to scanty.	15	20	None.	None.	2 lb.	—	16	Great improvement.	Eleven weeks after treatment improvement maintained. At work 7 weeks as packer. Tubercle bacilli, many.
C. H.	27	M.	1st stage.	None.	½-1 oz. .. unaltered.	20	30	10, all below 10 milligrme. dose.	None.	Unaltered.	Unaltered	35	Improvement.	Sputa examined again and again; no tubercular bacilli found.
F. J. W.	29	M.	1st stage.	Many.	1 oz. .. scanty.	36	100	6 below 10 milligrme. dose; 4 above.	Hectic and abdominal pain; sore over xiphoid.	Unaltered.	Unaltered.	70	Unimproved.	Has not been seen since treatment ended.
Z.	31	M.	1st stage.	Many.	1-3 oz. .. abt. 2 oz.	44	350	6 below 10 milligrme. dose; 6 above.	None.	1½ lb.	—	66	Improved materially.	—
J. K.	35	M.	1st stage.	None.	½ oz. .. scanty.	55	1000	13	None.	—	3 lb.	67	Decided improvement.	Treatment just ended.
T. H.	26	M.	1st stage.	Few to many.	1-4 oz. .. unaltd.	18	20	5 below 10 milligrme. dose; 1 above.	Hectic before, during, and after treatment.	—	7 lb.	32	Became worse.	Hectic before, during, and after treatment. Had attacks of diarrhœa with pain on 4 days.
T. P.	24	M.	1st stage.	Very many.	1 oz. .. ½ oz.	40	400	3 below 10 milligrme. dose; 2 above.	Laryngeal tuberculosis.	10 lb.	—	66	Improved in lung; larynx, trifling improvement.	—
H. D.	14	F.	1st stage.	Very many.	½-1 oz. .. scanty.	36	100	3, all up to 10 milligrme. dose.	Pleurisy; old hip-joint disease.	12 lb.	—	42	Great improvement.	—
H. B.	28	F.	1st stage.	Many	1½ oz. .. none.	32	100	4 up to 10 milligrme. dose.	None.	10 lb.	—	46	Very great improvement.	Excellent health two months after treatment. Is in work as a general servant.
M. deW.	28	F.	1st stage.	Many.	½ oz. .. 1 dr.	31	50	10 up to 10 milligrme. dose; 2 above.	Tonsillitis; trivial attack.	3½ lb.	—	42	Improvement.	—
O. H.	21	F.	1st stage.	Few.	Scanty .. scanty	69	300	9 up to 10 milligrme. dose; 9 above.	None.	6½ lb.	—	126	Great improvement.	Still in hospital.
L. B.	23	F.	1st stage.	Very many.	½ oz. .. scanty.	38	100	4 up to 10 milligrme. dose; 9 above.	Hectic before treatment.	6 lb.	—	56	Improved materially.	Sputum after treatment ceased. All viscid mucus. Hectic before treatment.
E. S.	20	F.	1st stage.	Very many.	2 oz. .. 1½ dr.	24	100	3 up to 10 milligrme. dose; 4 above.	Hectic before treatment.	Unaltered.	Unaltered.	52	Improvement. Still in hospital.	Hectic before treatment began. Trace of albumen on five occasions, four of them before treatment. Had rheumatic fever 12 months ago.
J. D.	20	F.	1st stage.	None.	None.	10	4	7	None.	Unaltered.	Unaltered.	30	Unimproved. Left hospital at her own request.	In the hospital 2 years ago with history of hæmoptysis. No sputum then.
G. M.*	23	M.	2nd stage.	Very many.	1 dr. .. scanty.	38	100	3 up to 10 milligrme. dose; 1 above.	Hectic after treatment.	—	2½ lb.	41	Improvement.	Sixth evening after treatment patient became hectic, remaining so 8 days. For 26 days thereafter temperature normal.
B. W.	22	M.	2nd stage.	Very many.	Unaltered; (1 oz. .. 2 oz.).	27	100	2 up to 10 milligrme. dose; 2 above.	Laryngeal tuberculosis.	2 lb.	—	30	Improvement.	Laryngeal condition unimproved.
E. G.	36	M.	2nd stage.	Very many.	2 oz. .. unaltered.	47	500	8 up to 10 milligrme. dose; 3 above.	Syphilis.	—	—	69	Improved materially.	Hectic before treatment. After seventh injection treatment stopped, there having been no reaction up to 12 mgr. Iodide of potassium given for 10 days. Reactions followed.
R. N.	36	M.	2nd stage.	Few; none found after injection.	½ oz. .. unaltered; mucus only; purulent before.	38	100	12 up to 10 milligrme. dose; 4 after.	None.	5 lb.	—	52	Unaltered.	—
J. G.	20	M.	2nd stage.	Many.	4 oz. .. 1½ oz.	33	100	16	None.	2½ lb.	—	51	Improved slightly.	Is able to return to work as museum attendant.
L. S.	45	M.	2nd stage.	Many.	2½ oz. .. 1 oz.	34	100	4 up to 10 milligrme. dose; 1 above.	None.	3½ lb.	—	43	Improved materially.	—
T. L.	49	M.	2nd stage.	Many.	2½ oz. .. 1½ oz.	22	100	2 up to 10 milligrme. dose; 5 above.	Twisted arteries.	10½ lb.	—	35	Improved.	Twisted arteries.

* See Figs. 1 and 2.

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CASES OF TUBERCULOSIS OF THE LUNG—(*continued*).

Patients' initials.	Age	Sex.	Condition of disease.	Tubercular bacilli.	Sputum decreased. From	to	No. of injections.	Highest dose in milligrs.	No. of reactions.	Complications.	Weight. Gained.	Weight. Lost.	Duration of treatment.	Results.	Remarks.
													Days.		
A. A.	16	F.	2nd stage.	Many.	½ dr. ..	none.	40	20	21 up to 10 milligrme. dose; 1 above.	Tuberculosis, glands of neck; sore left side.	—	4 lb.	84	Improved. Sore healed.	Lungs both affected. Physical signs unaltered.
A. K.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Still under treatment.
A. D.*	40	M.	Cavity.	Many.	1 oz. ..	scanty.	44	100	3 up to 10 milligrme. dose; 2 above.	Hectic before treatment.	—	—	—	—	Still under treatment.
A. D.	27	M.	Cavity.	Very many.	1 oz. ..	6 oz.; increased.	33	70	1 up to 10 milligrme. dose; 1 above.	Laryngeal tuberculosis; hectic.	8 lb.	—	52	Great improvement. Signs of cavity gone.	Slight hectic before treatment. At work at the docks as a stevedore. Temperature now normal (April 7th).
A. W.	23	M.	Cavity.	Many.	4 oz. ..	1½ oz.	40	40	11 up to 10 milligrme. dose; 9 above.	Hectic from first.	Unaltered.	Unaltered.	56	Became worse.	Ulceration of vocal cords, with irregular granulations developed during treatment. Anæmic epiglottis. Arytenoid cartilages and both cords hyperæmic before treatment. Marked hectic from beginning to end.
C. M.	23	M.	Cavity.	Very many.	5 oz. ..	¼ dr.	8	3	1	Hectic before treatment.	Unaltered.	Unaltered.	9	Improved considerably.	Hectic from the first. Improvement not due to treatment probably. Had marked hectic (102·4°) before treatment. Much less marked since.
S. M.	19	F.	Cavity.	None.	1 dr. ..	4 dr.; increased.	41	150	14 up to 10 milligrme. dose; 3 above.	Hectic before treatment.	7½ lb.	—	79	Slight improvement.	Slight hectic before treatment. None for a week after treatment. Occasional trace of albumen.
S. M.	18	F.	Cavity.	Very many.	2 dr. ..	2 oz.; increased.	9	6	4	Pneumothorax, left lung.	Unaltered.	Unaltered.	14	Became worse.	Pneumothorax occurred 4 days after patient discontinued treatment at her own request.
A. H.	28	F.	Cavity.	Very many.	1 oz. ..	1 dr.	22	8	12	Purpura.	—	5 lb.	35	Became worse.	Trace of albumen on four occasions during rash.
ANÆMIA.															
A. B.	18	F.	Anæmia.	—	—	—	15	30	7 up to 10 milligrme. dose.	None.	8 lb.	—	28	Very great improvement.	Injected, with her consent, as a control case at first, afterwards because of unexpected reaction.
LUPUS VULGARIS.															
A. N.	16	F.	Face; elbow.	—	—	—	50	1000	18	—	Unaltered.	Unaltered.	104	Arm very greatly improved, face much improved.	Beyond very slight headache on 2 or 3 occasions, this patient had no subjective symptoms of general reaction.
E. F.	57	F.	Face; hand.	—	—	—	50	400	8	—	10 lb.	—	124	Much improved. Relapse.	During last weeks of treatment fresh centres of infected skin noted on right temple and on nose.
E. R.	27	F.	Patch under chin; face.	—	—	—	59	1000	9	—	10 lb.	—	128	Much improved.	——
L. F.	21	F.	Face, nose, and lips.	—	—	—	59	1000	6	—	18½ lb.	—	155	Great improvement; relapse.	Signs of relapse during last month of treatment; fresh spots below right nostril, at root of nose, and on right cheek.
J. B.	27	F.	Right side of nose; right cheek.	—	—	—	35	1000	6	—	—	—	63	Very good.	Slight case.

* See Figs. 3, 4, 5, and 6.

N.B.—When this paper was read before the Medical Society, these tables were to have been shown in the form presented here. It was, however, found that the tables as it is given in these pages would have been unwieldy on the walls of the Society's room; hence certain additions to the tables are now published.—G. A. Heron.

patients. Weight, as a rule, was gained. This, however, is a condition common to most consumptives during their sojourn in hospital, whether they are or are not treated by tuberculin. Evidences of improvement in the lung itself were found in a change in moist sounds heard there before treatment was commenced. This change consists in a gradual lessening of those qualities of a râle, which enable the trained ear to distinguish between moist crepitations and the dry cracklings associated with sounds due to friction. The moist sounds are heard to approach in quality nearer and nearer to the dry ones, and to become, at least to my ear, indistinguishable from them. In patients who do very well under the treatment there comes a great diminution of both moist and dry sounds; for in a month or six weeks of treatment with tuberculin it is often to be noticed in these cases that, during ordinary respiration, no râles, dry or moist, are audible, although when the patient coughs there come little showers of crepitations, which, however, are only to be heard during the first two or three inspirations that follow the cough. In not one of my patients have these signs absolutely disappeared, though in four of them they have all but gone. In order to ascertain the exact value of these different degrees of improvement much more time and prolonged observation of these cases are necessary before, in my opinion, we can gauge with accuracy, and with justice to all concerned, the real worth of tuberculin as a healer of tuberculosis of the lung. In cases

at the very commencement of that disease, and when it is not seemingly quiescent, I think the remedy should be tried, because no drug is known to have anything like the beneficial effect of tuberculin upon those tubercular diseases which can be seen and handled, and evidence, it seems to me, is accumulating tending to show that the beneficial effects which we see produced in lupus and other similar conditions by the use of tuberculin are also produced in the diseased lung which we cannot see. And another reason for its use in very early stages of lung disease is that, in cases of this kind, there is, so far as I know, no evidence to show that there is material risk in employing tuberculin. The remedy has been already used in several of these early cases, and no evil, but, on the contrary, material good, to the patients concerned has resulted in no inconsiderable number of these early instances of lung disease. In such cases as these, I can see no reason why there should be any hesitation in using tuberculin as a remedial agent. In lupus vulgaris, however, the beneficial effects following the proper use of tuberculin are so evident and so marked, that I feel sure this remedy will very soon become an essential part of the treatment of that disease. In two of my cases of lupus fresh points of infection were distinctly evident, and these manifested themselves to me, and to the patients and others, during the last four weeks or so of the five months' course of treatment to which these patients were submitted, and while they were taking daily increasing doses of tuberculin ranging between 200 and 1000 mgr. The cases now referred to are those marked on the table as L. F. and E. F. In the former case the points of fresh infection were observed upon the upper lip and right cheek, and in the latter over the right temple. These two cases both show, as is indeed already well known from other sources, that in spite of the excellent results which, up to a certain point, practically always follow the use of tuberculin in lupus vulgaris, danger of the reappearance of the disease is so great that, as Koch himself says, we must make "use of all other auxiliary methods to assist the action of the remedy."

From a paper of this kind it is inevitable that much that is of importance and of interest must be omitted. I have tried to indicate certain points in this question concerning the value of tuberculin as a remedy, but of necessity I have left very much unsaid.

I congratulate the Society upon the fact that you, Sir, preside over our debates, for there is no one else into whose hands the conduct of our proceedings could be better confided, or in whose sense of what is just and right to all concerned we could more surely place a perfect trust.

NOTE ON A SUCCESSFUL CASE OF ŒSOPHAGOTOMY FOR REMOVAL OF A TOOTH-PLATE IMPACTED IN THE ŒSOPHAGUS FOR FIVE YEARS AND NINE MONTHS.

By WILLOUGHBY FURNER, F.R.C.S.,
SURGEON TO THE SUSSEX COUNTY HOSPITAL.

THE longest period of impaction of a foreign body in the œsophagus removed successfully by operation which I can find recorded is three years and a half: the patient was a child; the foreign body a halfpenny. The case is recorded by Mr. Bennett May.[1] In the woman whose case I relate now the foreign body was a silver-gilt tooth-plate with three gold hooks, and carrying three teeth, and had been swallowed five years and nine months before the date of operation.

E. B——, aged forty-four, married, mother of a family, was admitted for the first time into the Sussex County Hospital on Nov. 6th, 1889. She complained of difficulty in swallowing, was thin, but fairly nourished. She said that on the morning of May 4th, 1884, whilst suckling her infant, and turning in bed, a tooth-plate slipped from its position in the upper jaw to the back of the throat; she felt almost suffocated, and being unable to seize the plate pushed it down her throat. Afterwards she experienced difficulty in swallowing and could only take liquid food, occasionally thickened with minced meat or bread crumbs. The dysphagia varied, but was always present and had much increased lately. She referred the seat of obstruction to a point about an inch and a half below the episternal notch. There had been occasional dyspnœa, lasting only for short periods, a minute or two. She was quite sure of the date of the accident, as she was at the time suckling her youngest child. A probang passed down the œsophagus met with obstruction ten inches and a half from the teeth; a coin-catcher got hold, but traction only seemed to tilt the plate into the surrounding tissues. One pair of long œsophageal forceps gripped the body firmly, but slipped off, and no fresh hold could be obtained. Further measures were then proposed, but the patient wished to return home.

She was readmitted on Jan. 30th, 1890. On Feb. 17th, under chloroform, œsophagotomy was performed. The usual incision was made, about three inches in length, along the anterior border of the left sterno-mastoid muscle. The omohyoid muscle was divided. The carotid sheath having been drawn outwards and the trachea and thyroid gland in the opposite direction, the œsophagus with the recurrent laryngeal nerve on its surface was then exposed; a full-sized bougie was now passed through the mouth down to the obstruction, and the œsophagus opened on its posterior surface. On passing the finger into the wound the foreign body could just be reached lying somewhat obliquely to the canal of the tube, the upper part projecting into the canal, the rest of the plate lying in a sac to the right of the gullet. The irregular surface of the plate was so closely surrounded by the walls of the sac that great difficulty was met with in its extraction. Various forceps were tried, but slipped off. It was finally grasped by a strong straight pair, and by a combined movement of pulling and rotation, requiring considerable force, it was at last removed. About an ounce of bright arterial blood followed the removal of the plate. The wound was well washed with weak carbolic lotion. One small artery to the sterno-mastoid required ligature; the œsophagus was not sutured. The upper two-thirds of the external wound were closed, the lower one-third left open, and a drainage-tube reaching up to the œsophagus was fixed in the lowest part of the external incision.

There was only slight shock, but no vomiting, after the operation. The wound was frequently syringed with boric acid solution (ten grains to an ounce of water), some of which the patient was directed to swallow occasionally; the teeth and gums were also cleansed with the same solution. No nourishment was given by the mouth during the first two days, but four ounces of pancreatised beef-tea were administered per rectum every four hours. In spite of all, the wound became offensive, the saliva flowing from it copiously. On the third day, as the wound showed no sign of repair and the patient was losing ground, an attempt was made to introduce food into the stomach through a No. 8 gum elastic catheter passed from the mouth. The mere passage of the instrument down the œsophagus produced retching, and although only about an ounce of milk had passed into the stomach, it all returned through the wound. No further attempt was then made to feed through the mouth until the morning of the fifth day from the time of operation. A small soft catheter was then passed through the mouth into the gullet beyond the wound, but not into the stomach. A little cold milk was then allowed to trickle by degrees through the catheter, but it all regurgitated through the wound. The presence of the catheter in the œsophagus so long unused to solids seemed to produce spasm. During the day the patient became much feebler and very restless, and complained of great hunger. The wound was now covered with greyish exudation, and the whole side of the neck down to the clavicle in front, and to the level of the spine of the scapula behind, was red and puffy. It was determined to make another attempt to get food into the stomach, and on the evening of the same day, the fifth from the operation, the patient was raised and supported in bed, and leaning slightly forward was given some milk to swallow in the natural way. She drank ravenously ten ounces of milk, only about a teaspoonful coming through the wound, which was then syringed out in the sitting posture. From that time she began to recover. She took her food, consisting of milk only, or with an egg and brandy, always in the sitting position. The wound soon discharged copiously, and the redness and puffiness of the neck gradually subsided. On the twenty-first day from the operation she swallowed bread-and-milk; on the twenty-fourth day she took fish; on the

[1] Annals of Surgery, 1887.

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twenty-eighth day the wound was healed. The patient was discharged well a few days later with no alteration of the voice. When seen some months afterwards she was stout and well, and could take food without any trouble.

Remarks.—Out of just 100 cases recorded, including my own, I find twenty-three deaths. In nearly all the fatal result was due to exhaustion and cellulitis of the neck. The two most important questions, therefore, in the after-treatment of these cases are feeding the patient and keeping the wound clean. There are many different opinions as to the best means of feeding the patient. Barton[2] and Markoe[3] are in favour of feeding through a tube introduced into the œsophagus through the wound. This plan involves disturbance of the wound, the more so if the œsophagus be incised on its posterior surface, which may be regarded as the seat of election if the position of the recurrent laryngeal nerve be considered. Southam,[4] in his two successful cases, fed by enemata for the first fourteen days, and subsequently by a soft tube introduced through the mouth. I tried this in my own case and failed. Abbé[5] approves of closing the œsophageal wound and advocates feeding through a tube protruding from the mouth from the first. Lediard[6] allowed rectal alimentation for the first three days, and then fluids by the mouth. Dr. Geo. Fischer[7] says every patient, whether the œsophagus has been closed or not, may be allowed to swallow fluid diet a few hours after operation without the aid of the stomach-tube. So far as the experience of a single case may justify an opinion, I would advise that the patient be fed by peptonised beef-tea enemata, with or without brandy, for the first twenty-four hours or less until the risk of vomiting from the anæsthetic has subsided, and then be allowed to swallow milk. If the incision be made in the posterior portion of the œsophagus, and the patient drinks in a sitting position, very little escapes by the wound, even if the edges of the gullet have not been sutured; no irritation seems to be produced, but vomiting and retching are most injurious. The wound may be syringed out with a weak solution of carbolic acid (1 in forty) whilst the patient is sitting up, if the œsophagus has been incised posteriorly, without any harm resulting. In my case strong boric acid solutions failed to keep the wound sweet. The carbolic lotion was much more effectual. Two teeth have been broken away; one probably when the first attempt at extraction was made with the œsophageal forceps, the other at the time of the operation.

West Brighton.

SOME POINTS ON

THE RELATIONSHIP OF THE EYE TO THE CARDIO-VASCULAR SYSTEM.[1]

BY RAYNER D. BATTEN, M.D., B.S.LOND.,
CLINICAL ASSISTANT, ROYAL LONDON OPHTHALMIC HOSPITAL.

SOME points of connexion between the eye and the cardio-vascular system are already well established. Eye symptoms occur in chronic albuminuria, syphilis, diabetes, and anæmia; also in some cases of chorea and epilepsy, megrims, and exophthalmic goitre. Various drugs affect both—e.g., alcohol, tobacco, atropine, lead. Dr. Broadbent, in writing on high-tension pulse, mentions glaucoma as one of the conditions associated with high arterial tension, of which he regards it as a consequence, although the mode of causation is not clear. There being, then, some *primâ-facie* evidence for a connexion between the eye and the cardio-vascular system, I propose to offer some observations tending to show that the connexion is more intimate than it is at present usually considered to be. Dr. Saundby, in his Lectures on Bright's Disease, speaking of optic neuritis, says: "Neuritis probably occurs as an idiopathic affection, especially in hypermetropic eyes." And again, speaking at Birmingham: "I would express my belief that children with hypermetropic eyes are especially liable to severe attacks of optic neuritis, which may be accompanied by headache, vomiting and giddiness, so as to simulate some coarse intra-cranial disease, the whole phenomena being, however, directly referable to the visual disturbances."[2] Dr. Gowers writes: "One other fact must be mentioned in connexion with the diagnosis of the cause of optic neuritis. In many cases in which slight neuritis of chronic course is associated with symptoms which would scarcely suggest the existence of disease such as would cause neuritis, hypermetropia exists. This combination may be noted, for instance, in chlorosis, in epilepsy, apparently idiopathic, and other slight symptoms of cerebral disturbance It is doubtful, in the present state of our knowledge, what share is to be attributed to the hypermetropia in the production of the neuritis, and from the commonness of hypermetropia the coincidence may have been accidental; but the fact deserves notice."[3] In cases of optic neuritis in anæmia mentioned by other observers, it is also generally noted that the refraction was hypermetropic. And personally I think hypermetropia of frequent occurrence in anæmia. Dr. Stevens[4] of New York considers that chorea is caused by hypermetropia, and Dr. Gowers has noted the connexion of optic neuritis and hypermetropia in chorea.

Now, while this association of hypermetropia with diseases causing optic neuritis has been recognised, I do not think sufficient importance has been attached to the significance of it, especially when taken in conjunction with the fact that optic neuritis from all causes occurs with far greater frequency in the hypermetrope than in the myope, or, I believe, in the emmetrope. Optic neuritis in the myope is, in my experience, unknown, and in the experience of others an occurrence of extreme rarity. So far, I have collected three cases only of optic neuritis in which myopia was noted. Now this fact, if fact it be, of the exemption of myopes from optic neuritis, while interesting in itself, may not at first sight appear to have any connexion with the subject before us. But the whole contention of my paper is that we are wrong in considering hypermetropia and myopia as merely local conditions; they are the outward and visible sign of an inward and vascular state. I hold that both are associated with certain general conditions, that the changes which lead to myopia are not limited to the eye, but are part of a general change, and that the arrest of development in the hypermetropic eye corresponds with similar partial development in other structures—in short, that there is a myopic and a hypermetropic cardio-vascular system. Following on this, it might not be unreasonable to expect that myopes may be free from certain diseases affecting hypermetropes, and also *vice versâ*.

Two explanations have been given me of the absence of optic neuritis in myopes: 1. The comparative rarity of myopia itself. 2. That local disease must have a local cause. I admit that the frequent connexion of optic neuritis with hypermetropia may be partly accounted for by the far greater frequency of hypermetropia than myopia; but this does not, to my mind, offer anything like a sufficient explanation of the total absence of optic neuritis in the myope, save from exceptional causes. Myopia may indeed be rare, but surely not so rare as to prevent common diseases, such as frequently cause optic neuritis, having been observed in myopes, and the occurrence of optic neuritis in a certain proportion of these cases. The extreme rarity of optic neuritis in myopes would appear to point to one of two things—either a structural difference in the myopic eye, or a structural difference in the body of the myope, rendering him less liable to this form of disease. Occasional cases of optic neuritis in myopes, from exceptional causes, show that the condition is not structurally impossible. But on the point as to whether the myope enjoys any exemption from chronic albuminuria and other diseases giving rise to optic neuritis, I can make no statement.

I propose, then, to give shortly the chain of observation which led me to the conclusion that myopia and hypermetropia ought to be considered as indicating a general, instead of a local, condition, and it may be well to observe that my conclusion was arrived at as the result of my observations, and that it differed entirely from my original theory. Amongst other differences between the two classes of hypermetropes and myopes, the mental and physical differences are early forced on one's notice. But while I had for a long time made mental notes on the two classes, and had from time to

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[2] Ibid., July, 1887. [3] Ibid., Sept., 1886.
[4] THE LANCET, Dec. 28th, 1889.
[5] New York Med. Jour., 1886. [6] Clin. Soc., vol. xviii.
[7] Deutsche Zeitschrift Chir., Bd. xxv., Heft 6.
[1] A paper read before the Harveian Society, Nov. 6th, 1890.

[2] Saundby: Optic Neuritis in Children, Birmingham Med. Review, 1885, xviii.
[3] Medical Ophthalmoscopy, p. 85.
[4] New York Medical Record, Aug. 12th, 1876.

time endeavoured to reduce my mental notes to words, I had made no serious attempt to investigate the physical state. I had, however, long puzzled over an observation of Mr. Mills on the subject of heart failure during the operation of division of the *internal* rectus in cases of strabismus—i.e., in hypermetropes; and when a case of cardiac irregularity, due apparently to an error of refraction, was narrated to me by Dr. Batten of Gloucester, and corresponded closely with similar cases of my own, I determined to endeavour to work out what was the connexion between cardiac irregularity and hypermetropia, and from this I was led on to the larger subject—namely, the relation of the eye to the cardio-vascular system.

As the result of my observations I have come to the following conclusions:—

I. First, as regards the peculiarities of what I will for the present term the hypermetropic circulation.

1. *In the young.*—Under this head I include all those not fully developed, and I consider this period of longer duration in the hypermetrope, who, to my mind, reaches his full development later than the myope. (α) *The pulse* is a quick one, and is easily accelerated by any cause, and varies rapidly; but the pulse-rate does not vary so much with the degree of hypermetropia as with the amount of accommodation. Thus, with latent hypermetropia I expect a quicker pulse-rate than with a high degree of manifest hypermetropia. The pulse is soft and compressible, not easily counted, and the tension is generally low. But in high degrees of hypermetropia with bad vision the pulse is often markedly slow. (β) *The heart*, in the few cases in which I have attempted to take measurements—which I have done by measuring the distance of the apex beat and the nipple from the middle line of the sternum—is, I consider, a small one; but this is not constant, as in some cases the heart appears dilated, and the apex displaced outwards. (γ) *The heart sounds* are generally regular, but with more or less marked accentuation of the first sound. In a certain number, I note a rhythm varying with the respiration, and murmurs of a variable and functional character occur. I have also noted loud apical systolic murmurs with more than average frequency. The heart symptoms, in fact, closely resemble those noted in chorea.

2. *The young adult* with hypermetropia is not a frequent patient for refractive purposes, but I consider him more liable to local inflammatory disease than the emmetrope, and still more so than the myope.

3. In the *middle-aged and old* hypermetrope, I notice, as Dr. Brunton has noted, the failure of *optical* accommodation taking place at the same time as the failure of the *vascular* accommodation, and hence flushings, giddiness, noises in the ears, &c. I note in addition marked cardiac irregularity and intermission, in some cases disappearing with the use of glasses. Dr. Broadbent has mentioned high tension pulse with glaucoma, and I am inclined to associate it with hypermetropia in the old.

(To be concluded.)

FOUR CASES OF TUBERCULAR MENINGITIS IN WHICH PARACENTESIS OF THE THECA VERTEBRALIS WAS PERFORMED FOR THE RELIEF OF FLUID PRESSURE.

BY W. ESSEX WYNTER, M.D., B.S., M.R.C.P., F.R.C.S.,
MEDICAL REGISTRAR AT THE MIDDLESEX HOSPITAL.

IN many fatal cases of tubercular meningitis coma supervenes with great rapidity and with all the signs of cerebral pressure, whilst after death little can be found besides an excess of cerebro-spinal fluid, often at a considerable positive pressure, to account for the symptoms and fatal issue. The possibility of recovery in this class of cases, where there is commonly little development of tubercle, together with the feasibility of draining away the fluid continuously by the theca vertebralis, suggested this mode of procedure.

The first case in which the method was tried was in February, 1889, in a boy, G. L——, aged three years, who had manifested the usual symptoms, and became comatose on the eighth day. On the next he developed Cheyne-Stokes respiration, became cyanosed and unable to swallow. A consultation was held, and it was decided to endeavour to relieve the pressure which was apparently answerable for the coma. No anæsthetic was needed; the child was supported in a sitting posture, a tiny incision was made in the skin beside the spine of the second lumbar vertebra, and a Southey's tube and trocar inserted till the point impinged against the lamina; the point was then directed slightly downwards and was pushed through the ligamentum subflavum and theca with an inclination towards the middle line. Clear fluid at once welled up into the tube on withdrawing the trochar, a fine indiarubber tube was arranged for continuous drainage, and the child put back to bed. During the next twenty-four hours four drachms of fluid were collected, besides what escaped along the cannula in the wound; the breathing became regular, the colour good, and the child swallowed some milk. Unfortunately the improvement was not maintained, the fluid ceased to escape, and the case proved fatal. The necropsy showed a considerable amount of tubercle at the base, with some opaque lymph, but no excess of fluid. It was not possible to discover the prick in the theca, and no evidence existed of any damage to the cauda equina. The fluid collected had a specific gravity of 1006, and contained only a trace of albumen.

The second case was that of J. L——, admitted to the Middlesex Hospital on Feb. 12th, 1890, under the care of Dr. Cayley. The patient, a girl aged eleven, had pertussis two years previously, and since that had suffered from earache, sometimes with discharge. She had been ailing for nine days with headache, anorexia, and latterly vomiting. There had also been photophobia and delirium. After admission the patient remained drowsy, tache cérébrale was noted, and she vomited at intervals, and flushed occasionally. On Feb. 21st Mr. Hulke cut down on the second lumbar vertebra, removed the spine and right lamina, and punctured the theca with a fine knife. Clear fluid escaped with some force, a drainage-tube was inserted in the vertebral canal, and the wound dressed antiseptically. On the following day the temperature had dropped from 102° to normal. The patient could be roused, and took liquid food well. The dressings were saturated with moisture and had to be changed. On the 23rd there was less escape of fluid, and on the 24th the dressings were nearly dry, and there was an increase of drowsiness, with development of squint. Death occurred from coma at 3 A.M. on the 25th, three days and a half after the operation. The necropsy showed that the aperture in the theca had closed, and when the membrane was incised the contained fluid spurted out in quantity; very little tubercle could be discovered.

The third case was a boy, B. V——, aged two years and four months, admitted under Dr. Copland, after a week's illness, with headache and vomiting. There had also been a slight fit and tendency to squint. On June 15th, two days after admission, respiration became irregular and there was some twitching of the arms. On the 21st drowsiness had deepened into coma, temperature 102·4°, pupils dilated and not reacting to light. Pressure symptoms being urgent, Mr. Pearce Gould cut down upon and divided the laminæ of the first lumbar vertebra. The theca was fully exposed and incised, some drachms of fluid escaped, the flow being increased with each expiration. A small drainage-tube was inserted in the subdural space and the margins of the theca attached to the sides of the wound. It was noted during the operation that as soon as the fluid was liberated the pupils, formerly dilated and inactive, contracted and regained their reflex activity at once. Twelve drachms of clear alkaline fluid were obtained, having a specific gravity of 1004, containing a large quantity of chlorides, but giving no reaction to tests for albumen or sugar, though a red-brown deposit in Fehling's solution occurred on standing. Subsequently the temperature rose to 104·8, the pulse became rapid and weak, and the child died five hours after the operation.

The fourth case, a girl aged thirteen months, was admitted under Dr. Cayley on April 13th, 1891. She had been ailing for a fortnight, but four days previously had been taken with convulsions, and there was a thin discharge from the right ear. On admission the child was semi-conscious, breathing irregularly, and with a pulse of 160. The fontanelle was rather sunken, and tache cérébrale readily obtainable. On April 15th convulsions occurred, and there was retraction of the head.

At 2.45 a Southey's tube was introduced into the theca

vertebralis between two lumbar spines, and four ounces of cerebro-spinal fluid were withdrawn, the last two ounces being bloodstained. The fontanelle sunk in. Death occurred at 5.30. The fluid was alkaline, loaded with chlorides. It gave no reaction to tests for albumen or sugar, and had a specific gravity of 1006. The necropsy showed acute general tuberculosis, especially marked in the lungs. The prick in the theca could not be found, but there was slight blood extravasation on its outer surface. The cauda equina was unhurt. Though none of these cases were ultimately successful, no harm in any one resulted from interference. In some there was temporary relief of symptoms, and the necropsy in each case showed ample reason for the fatal termination, either in general tuberculosis or failure in maintaining the drainage. It is much to be regretted that the aperture was allowed to close in the second case, which promised well till pressure was renewed by reaccumulation of fluid. Further experience will no doubt enable a better selection of cases to be made, and the treatment to be carried out more effectually.

A RARE FORM OF HYDATID OF THE LIVER TREATED BY THE CAUTERY.

BY F. W. ROBINSON, M.B., M.R.C.S.

THE following case of abdominal tumour presents so many remarkable and unusual features that I venture to give its history in some detail. The patient is a young, spare man, aged twenty-four, who had always enjoyed good health up to the time that he presented himself to me in December last. For the previous six months, although he was conscious of an enlargement in the abdomen, he was in every way well, carrying on his ordinary occupation, that of a draper's assistant, without any inconvenience. He first noticed that he was getting stout; this gave him no uneasiness, however, and the tumour would probably have been allowed to grow had he not been attacked with severe abdominal pain about a week before he came to me. He has always been a steady man and very abstemious. There is no history of previous illness or of syphilis. He belongs to a consumptive family, two of his brothers having died of phthisis. The pain for which he consulted me was felt mostly over the region of the left hypochondrium and was severe, keeping him awake at nights. It usually lasted for some hours and then left him. In the intervals he was perfectly well. Physical examination showed his organs to be quite healthy, and with the exception of slight inspiratory dyspnœa, caused by the upper limit of the tumour preventing the descent of the lung, I could find nothing abnormal. His urine was healthy, his appetite good, and his bowels regular. The tumour in the abdomen was very extensive, and, the patient being a thin subject, its outlines were well defined. It occupied a large area, extending on the right side as low as to within an inch of the crest of the ilium. From this point it stretched obliquely across the abdomen to the left hypochondrium, disappearing behind the left lower ribs, which were pushed forward considerably. In this course the tumour crossed two inches below the umbilicus. On the left side in front it extended as high as the fourth rib, the heart's apex beating in the third intercostal space a little to the left of the sternum. On the right side in front it was continuous with the liver dulness. Behind on the right side the ribs were more prominent than on the left, and there was dulness from the angle of the scapula downwards to within an inch of the crest of the ilium. On the left side behind there was no dulness, and the respiratory murmur was normal. The parts then rendered most prominent by the tumour corresponded to the ribs behind on the right side below the angle of the scapula and the left lower ribs in front. The lower limit of the tumour in front presented to the touch a well-defined margin, which felt like the rounded border of the liver. There was transmitted pulsation over the front of the tumour. The surface was smooth, but not equally resistant, the parts of the tumour to the left of the umbilicus being firmer and more resistant than those to the right. Auscultation revealed no friction sound, and there was no fluctuation at any part. The tumour did not descend with inspiration. The greatest circumferential measurement was a line crossing immediately below the xiphoid cartilage—viz., thirty-five inches.

From the above it will have been gathered that the bulk of the tumour occupied the right side in front and behind. During the time previously to the operation that the patient was under my care the pain was very severe, and was evidently undermining his health. He became very prostrate, and was entirely confined to his bed, any movement giving him great pain. This was always referred to a region over the left lower ribs in front. From the above history I suspected hydatids, and Dr. Wardrop Griffith, who kindly saw the case for me, was also of this opinion. An exploratory needle was introduced and some clear fluid drawn off; this on examination gave a specific gravity of 1007 and an abundance of chloride of sodium. There was no albumen or bile. Unfortunately, no hooklets could be found. On January 4th, after a needle had been passed and fluid drawn off, I made an incision about four inches long from the xiphoid cartilage downwards. After exposing the tumour and isolating the peritoneal cavity with sponges, I incised the cyst wall to the length of the abdominal incision; several ounces of clear, limpid fluid escaped. The walls of the cyst were quite an inch in thickness and of cartilaginous hardness. The size of the cyst was about that of a "closed hand," and quite free from any communication with the rest of the tumour. It was somewhat irregular in shape, and was lined by a smooth membrane. Its walls were everywhere hard and resistant, and the surface somewhat reticulated. There was considerable hæmorrhage from the thick walls of the cyst, which it was found impossible to check, and it could only be controlled by sponges. I then examined the tumour with my hand in the peritoneal cavity. The sharp anterior edge of the liver could be easily felt, and rising from its upper surface immediately above this a smooth, globular, extremely hard mass extended over all parts within reach of the hand. In the hope of establishing a communication with other cysts, I pushed a curved rectal trocar through the right wall of the cyst in a direction downwards and outwards, and drew off several ounces of clear fluid. The patient was so collapsed from loss of blood at this stage that it was thought advisable to conclude the operation. The peritoneal cavity was well washed out, and the cyst wall stitched to the abdomen. Very severe shock followed the operation, and he subsequently had a sharp attack of peritonitis, which, however, subsided in the course of a week.

On Jan. 14th his temperature rose to 103°, and he complained of great pain; this, however, subsided under treatment, and the improvement continued until the 17th, when the pain and increased fever again recurred. As I considered that his symptoms pointed probably to suppuration in the cysts caused by septic infection through the opening made in the previous operation by the trocar, and which had now almost closed, I reopened the channel with a large trocar, letting out a quantity of pus, and then forcibly dilated the passage with forceps. I could now pass my finger into a cyst in all respects resembling the one first described, only smaller—that is to say, it had the same hard resisting walls, a smooth lining membrane, and a reticulated surface, and, with the exception of variations in size, this description will apply to all cysts opened up during the progress of the case. There was an immediate relief to all his symptoms, the pain completely subsiding and his temperature falling considerably; the improvement was only temporary, however, for in a few days all his symptoms recurred and gradually increased. On the 27th they became very urgent, his temperature was 105°, and his pulse very feeble and rapid. The pain was very severe and the prostration extreme. I determined therefore, if possible, to open up a communication through all parts of the tumour, and for this purpose I used the benzoline cautery. With the finger of my left hand passed through the trocar opening into the cyst previously opened up, and with my other hand on the surface of the tumour externally, I was able to form some conception of the amount of tumour intervening between my two hands. With the knowledge thus gained, I passed the cautery through the cyst wall in a direction downwards and outwards towards the right lumbar region, and opened up a large cyst exactly similar in character to the others described. A large amount of pus escaped. Adopting the same precautions as in the above, I now turned the cautery somewhat backwards, and opened up another large cyst from the floor of the last, pus also escaping from this. I then withdrew the cautery and

passed it in a direction upwards and outwards through the right wall of the original cyst, opening another large cyst with a similar flow of pus. I then passed the cautery vertically downwards for about an inch or an inch and a half, but without result; and the same negative result followed when I attempted to pass it though the left wall. I was able, however, to open another cyst in the direction of the right hypochondrium. In all these cases pus escaped. The cautery in each instance passed through at least half an inch to an inch of dense cyst wall, and its entry into the cyst was indicated by a distinct slip followed by a flow of pus. Altogether six cysts, counting the original one, were opened up in this manner; all were situated to the right of the tumour, all were of the character described above, and all had a large capacity.

The progress of the case after this operation has been one of uninterrupted improvement. Suppuration was very profuse for about a fortnight; the temperature, however, rarely exceeded 101°. During this time the lining membrane of the cysts was detached in long shreds of slough, and after this process was completed suppuration ceased, and the whole of this portion of the tumour seemed to collapse to its present dimensions. On the left side, in the situation of the punctures which failed to enter cysts, suppuration continued active, all the tissue between the punctures becoming involved in the process and breaking down to form a large cavity, from which pus continued to be discharged profusely for many months and in a diminished quantity up to the present time. It has, however, gradually granulated up so that now it is represented by only a small cavity.

It remains to say a few words about the size of the tumour and the present condition. For the last six months the lower margin of the tumour has occupied a situation of two inches above the umbilicus, whereas before the operation it reached two inches below. The greatest circumferential measurement is thirty-one inches, against thirty-five before the operation. The respiratory murmur has returned over the back of the right lung. The heart has not descended from its abnormal position. For many months the patient has enjoyed as good health as he did before the operation, and he has been quite free from pain. The failure to find hooklets and the absence of anything like daughter cysts in this case, throw some little doubt upon the diagnosis of hydatid disease; but its cystic character and its evident relation to the liver make it, I think, impossible to have been anything else. One can only speculate as to the form of hydatid represented in this case. That there has been an exceptional development of cysts is manifest, but the difficulty is to decide whether these cysts have been extruded from the wall of the parent cyst—as in the exogenous variety of hydatid,—or whether they have formed within the parent cyst. Ziegler alludes to both varieties under the names of "echinococcus granulosus" and "echinococcus hydatidosus" respectively. The points of special interest in this case are the size and number of the cysts forming the tumour, the thickness and hardness of their walls, and the success which has attended the treatment by the cautery.

Huddersfield.

A CASE OF DIGITAL EXPLORATION OF THE PYLORUS.

By JOHN W. TAYLOR, F.R.C.S.,

SURGEON TO THE BIRMINGHAM AND MIDLAND HOSPITAL FOR WOMEN; CONSULTING SURGEON TO THE WOLVERHAMPTON HOSPITAL FOR WOMEN; AND CONSULTING GYNÆCOLOGICAL SURGEON TO THE BIRMINGHAM AND MIDLAND SKIN AND LOCK HOSPITAL.

M. P——, aged forty-three, married, no children, came from a distance to consult me in July, 1889. She had history of vomiting for several months, the vomit being copious, acid, and frothy. For six weeks the vomiting had been constant after every meal. On examination, the stomach appeared to be moderately dilated. On careful palpation it was thought that a small amount of thickening in the neighbourhood of the pylorus could be detected, but this was always doubtful. The patient was considerably emaciated; her general condition, apart from this, appeared to be satisfactory. On inquiry into her past history, she stated that she had suffered from ulcer of the stomach with hæmatemesis fifteen years ago, but that since that time until the date of her present illness her health had been good. The illness fifteen years ago had been severe, and she was treated largely by hypodermic injections of morphia, the marks of which are still visible. A diagnosis was made of pyloric obstruction with moderate dilatation of the stomach, and it was considered highly probable that the gradual contraction of an old cicatrix following gastric ulcer might be responsible for her present symptoms. For two months the case was under occasional observation. She was treated first of all by a mixture containing carbolic acid and bromides, and afterwards by washing out the stomach, but without any success. The vomiting persisted, and the patient steadily but slowly decreased in weight week by week.

As the case appeared to be a suitable one for Loreta's operation, and no benefit had been obtained by other means, I proposed to open the stomach and examine the pylorus, dilating this if I found it to be contracted. This proposal was accepted by the patient, and on Sept. 18th of the same year I opened the abdomen above the umbilicus. No tumour was found on external examination of the stomach and pylorus, but the former was dilated and extended for some little distance below the umbilicus. The incision was enlarged downwards to the left of the umbilicus, and having drawn out the stomach I opened it midway between the curvatures at the pyloric end, inserted my finger and searched for the internal opening of the pylorus. For a considerable time I could not find it, the stomach from within feeling like a closed sac. When discovered, over a sharply defined ridge of mucous membrane at the highest part of the stomach on the right side, the finger entered it easily and could pass without difficulty down into the duodenum. There seemed to be but little, if any, increase of muscular structure in this situation, and the stomach and intestine were so acutely bent at the pylorus that the orifice was completely obscured until the stomach had been raised and a thorough search was made. With so limited an experience of digital exploration from within the stomach, I would not presume to say how much this differed from the normal; but on careful consideration of the case the kinking of the gut—which only thorough distension of the stomach in the recumbent position seemed able to undo—must, I think, have been the cause of the gastric dilatation and the prolonged and persistent vomiting. I closed the wound in the stomach with a continuous Lembert suture, and the incision in the parietes with silkworm gut. The patient recovered from the exploration without any untoward symptoms, nutrient suppositories being used exclusively for several days as food. From this date the vomiting ceased, and the patient has had no return of it. This is now more than a year ago. In a few months after operation she had increased two stones in weight, and when I showed the case at the recent meeting of the British Medical Association the improvement had been well maintained. Although I did not sew the stomach to the abdominal wall, adhesions have probably taken place between the site of the stomach incision and the under-surface of the liver or the parietes, it being the rule to find adhesions after intra-abdominal suture. If so, this has held the stomach at a higher level, and the passage of food from the stomach into the small intestine has been rendered less difficult.

The kinking of tubular viscera, such as bowel or ureters, is evidently a much more common cause of obstruction than has hitherto been generally recognised. In a case of enormous dilatation of the stomach with pyloric tumour which was under the care of Dr. Foxwell and myself the real obstruction was found after death not to be directly due to the tumour, but to a fold or kink of the intestine below the pylorus, and secondarily to the tumour, which was the cause of the kink. Within recent years (since 1885) Glénard has described a series of intestinal displacements, or "enteroptoses," as accompanying gastric neurasthenia with moderate dilatation, and his writings on enteroptosis, or Glénard's disease, have been either defended or thoughtfully considered by several other writers—by Professor Dujardin-Beaumetz, by Féréol, Trastour, Cuilleret, and Sanctis. According to his view many cases of gastric neurasthenia are due to direct mechanical causes; and although he places his fundamental lesion in prolapse of the right flexure of the colon, it is evident from his illustrations that, if these have any basis of fact, acute pyloric flexure, less in degree, but such as I have been describing, must play no unimportant part in the pro-

duction of gastric symptoms. When a flexure as marked as in the case I have reported is found during operation, there can, I think, be little doubt that the attachment of the intestinal tube above the flexure at a slightly higher level will be likely to afford the most permanent relief to the patient.

Birmingham.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

THE PREVENTION AND TREATMENT OF SCARLET FEVER.

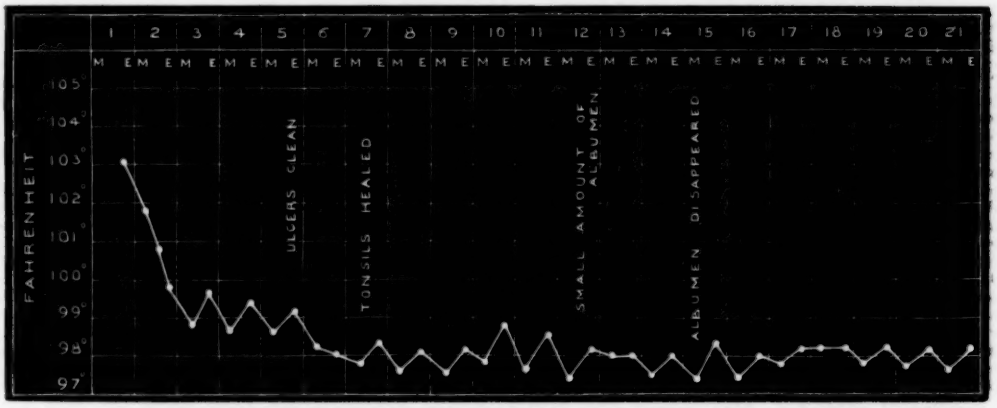
BY W. BEZLY THORNE, M.D.ST. AND., L.R.C.P.LOND., &c.

THE prevention, treatment, and, perhaps I may venture to add, the cure of scarlet fever are subjects of so great importance to the medical profession and the public at large that I venture to offer for publication the following brief notes of a case which was under my care at the commencement of this year. If it stood alone, I should be compelled to admit that no practical conclusion could safely be drawn from it; but I have since gathered, from the perusal of a paper read before the Epidemiological Society by Mr. J. Brendon Curgenven,[1] that many other cases of the same disease have been somewhat similarly treated with like striking results, and I think that it cannot fail to serve a useful purpose to invite others who have practised the treatment advocated by Mr. Curgenven to bring forward the results which they have obtained. I ought to add that, now that I have had the advantage of becoming acquainted with the method adopted by that gentleman, I should modify my treatment so as to bring it more into harmony with his.

The patient, fourteen years of age, but of the physical development of ten, was seen within little more than an hour of the appearance of the rash, and was reported to have been "bilious and shivering over the fire" for something more than two days. The face was flushed and dotted with a scarlatiniform rash; the eyes were red and suffused, and both tonsils swollen, inflamed, and ulcerated; the pulse was 120 and the temperature 103°. She was immediately ordered to take internally every four hours five minims of the oil of eucalyptus globulus emulsified with powdered acacia, to use every hour a gargle of carbolic and tannic acids suitably diluted, to undergo daily inunction with an emulsion of eucalyptus oil of the strength of half a drachm to the ounce, and made up with glycerine, to promote adhesion to the skin, and to have the scalp and hair daily sprinkled with a spirit lotion containing eucalyptol, with a small quantity of almond oil. On the following morning—that is, in rather more than twelve hours—I found that the rash had receded from the face. I inquired of the nurse whether any was to be seen on the chest, which she had washed and anointed two hours previously, and was informed that it was "well out," but on examining that region found that it presented absolutely none. It was at that time making its appearance on the lower extremities, was well marked in the evening, and on the following morning had entirely disappeared. No desquamation followed. The chart tells the rest with sufficient detail. It should be added that although the house was occupied during the illness and up to the departure of the patient to the seaside on the twenty-second day by six full-grown adults and four younger persons whose ages range from nineteen to six, besides the sick one, the infection has not spread. A sheet, which was from time to time moistened with a dilution of sanitas, was fixed by the nurse to the door of the sick room in accordance with the instructions of the institution from which she was sent.

South Kensington.

[1] London: H. K. Lewis, Gower-street.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SERPIGINOUS ULCER OF BOTH CORNEÆ CURED BY SCRAPING.

BY A. G. MOSSOP, L.K.Q.C.P.I., L.R.C.S.I., M.R.C.S., &c.

MRS. A——, aged sixty-five, consulted me on the 24th of last November. The history given was of having a cold in her eye for a fortnight. On examination I found an ulcer having a diameter of about two millimetres, situated on the outer part of the left cornea, and extending on to the conjunctiva. The outline was circular. There was great photophobia and pain, with congestion of the conjunctiva and marked debility. I prescribed internally quinine and iron; locally atropine (four grains to the ounce), three times a day; belladonna lotion (two drachms of the extract to a pint of water, with an equal quantity of warm water), to be used frequently. I blistered the left temple and covered the eye. I continued this treatment for five weeks, with occasional blisters. The patient frequently suffered from intense photophobia, which was invariably relieved by the iodine liniment painted on the forehead and temples. During this time the ulcer had gradually enlarged in all directions, implicating the whole of the outer half of the cornea and neighbouring conjunctiva, the latter being greatly congested, and showed no signs of healing in any part. At times there was much pain in the eye, for which cocaine (4 per cent.) was freely used. I had previously tried the yellow oxide of mercury (twenty grains to one ounce of vaseline) for two or three days, hoping that stimulation would cause the ulcer to heal; but as the eye became much more irritable it was discontinued. The patient suffered greatly from pain up the left side of the head, and as the ulcer had become very deep there seemed great danger of perforation of the cornea. At this period an ulcer appeared on the outer edge of the right cornea. On Dec. 31st (rather more than five weeks after I first saw the patient) I placed a drop or two of cocaine in both eyes and thoroughly scraped the ulcers, using a sharp spoon, and then covered the surfaces with powdered boracic acid. Next day all pain had disappeared from the eyes and head, and the patient expressed herself as greatly relieved. Both ulcers healed completely during the

next fourteen days without any further trouble. After the scraping, atropine alone was used three times a day. A good deal of opacity was left on the cornea first attacked, which has been greatly improved by iodide of potassium (five grains to an ounce of water), dropped into the eye three times a day. In fact, at the present time there is hardly any opacity, the patient having very good vision. This is the first case in which I have scraped an ulcer, and the result appears to me to be very satisfactory. I have been frequently very much impressed by the marked influence iodine liniment, painted on the forehead and temples, has in relieving photophobia, and by the value of iodide of potassium (five grains to the ounce), locally, in clearing up old opacities due to ulceration. I think the great power possessed by the cornea in recovering itself after severe ulceration or injury is very well shown in this case.

Newhaven.

A RARE CASE OF WATERY DISCHARGE FROM THE UTERUS.

BY SKENE KEITH, M.B., F.R.C.S. EDIN.

IN the month of September, 1888, I saw, in consultation with Dr. Gregory White of Bournemouth, an unmarried lady, thirty-six years of age. Dr. White wrote that he had known the patient for eight or nine years, and that for a long time before that period she had suffered from a profuse watery discharge from the uterus, "so profuse as to be beyond anything I have heard or read of." In 1885 a well-known abdominal surgeon was consulted, but did not recommend any operation. Later on another gentleman was seen. He curetted the uterus, and the operation was repeated twice by Dr. White, the result being that after the last scraping there was little or no discharge for three months. Dr. White was of opinion that nothing short of removal of the ovaries was likely to do permanent good; everything else had been tried, and had completely failed. It was found that the lady was in a highly neurotic condition. For many years all her dresses had to be lined with waterproof cloth, and every night her bed had to be made up as for a confinement; otherwise the mattress was certain to be destroyed. The discharge was thin, had a heavy sickly odour, and was like dirty water. Menstruation was regular, and had commenced at fifteen. At the age of twenty, and after a severe attack of inflammation of the lungs, menstruation ceased for some months. It was at this time that the watery discharge first commenced. It came then at irregular intervals and in gushes. Three years afterwards the discharge became more violent, and the lady suggested that this might have been owing to a chill caught while working in her district in rainy weather and during menstruation. The general health was not good. From this time onwards the watery discharge would cease during menstruation if the patient lay perfectly flat in bed; but if she got up the flow became very violent, and the hæmorrhagic discharge either ceased or at least appeared to do so. For ten or twelve years the discharge has been constant, night and day, with frequent sudden gushes in addition. The patient said that it was quite impossible to describe the amount of the floodings. Her description is, "it was greater than I can tell, drenching one from head to foot many times a day." The general health was entirely broken down, and large doses of bromidia were taken every night. The friends of the patient were most anxious that something should be done, and she herself looked forward to an operation as a perhaps speedy end to her unhappy condition. On examination, the uterus was found to be somewhat larger than natural, and on the left side a distinct swelling was to be felt. This, however, turned out to be a thin-walled cyst of the parovarium. There was therefore little in the local examination to guide one as to treatment, but the fact that the discharge had ceased for three months after curetting the uterus seemed to indicate that that organ was at fault; and if it could be rendered inactive, a cure would be the result. It was at the same time evident that the condition was not one of fluid collecting in a Fallopian tube and discharging at intervals, as there was a constant flow of the liquid. Removal of the ovaries was therefore advised, and was performed on Sept. 22nd, 1888. The uterus was flabby and larger than natural; the ovaries were somewhat small but apparently healthy; and the Fallopian tubes were soft, anæmic, and dilatable, and admitted an ordinary cedar pencil for some distance from the fimbriated end. No additional light was thrown on the origin of the disease by the operation. All discharge entirely ceased within a week, and there was not any abdominal disturbance. The patient, however, nearly died from an attack of double pneumonia, strophanthus apparently saving her life. Return to health was slow, but now, two years after the operation, the patient is able to write "my life is simply perfect happiness."

Charles-street, W.

SEQUEL TO A CASE OF ABDOMINAL SECTION.

BY EDWARD MALINS, M.D, M R C.P.,
OBSTETRIC PHYSICIAN TO THE GENERAL HOSPITAL, BIRMINGHAM.

SOME years ago I published in THE LANCET (Nov. 1st, 1884) a series of cases of abdominal section for various purposes. Among these was one of a girl upon whom an exploratory opening was made, but the ovaries, apparently showing no signs of disease, were not removed. The following was the history then recorded:—"A girl aged nineteen attended the out-patient department of the hospital for several months, complaining of severe abdominal pain on micturition and defecation. Nothing abnormal could be found in the rectum or bladder. The uterus and ovarian regions were very sensitive. She became an in-patient for five weeks, was subjected to a variety of treatment, and discharged. Several weeks later her mother came and begged for something more to be done for her, as the pain was intense at times. She was readmitted and the abdomen opened. I examined the ovaries, which were intact, and therefore not removed; nothing wrong could be found elsewhere in the pelvis; it was washed out, and the wound closed. The pain never recurred, and the patient got quite well. Some time later she returned to say that her health was better than it had ever been, and to express her thanks for the operation." The case was briefly entered in the hospital "Record of Consultations and Operations" as follows:—"Uterus and appendages appeared normal on examination; nothing removed. Cavity of peritoneum opened by incision an inch and a half long between pubes and umbilicus. On digital examination the uterus and its appendages appeared to be normal. The abdomen was carefully closed with silk sutures (gauze); salicylic wool dressings; hæmorrhage trifling; no spray (ether)." On the strength of these facts, as above narrated, the case was published as one of neurosis or functional disorder, cured apparently by the effect of an exploratory operation. It seemed, however, that this improvement, so marked at the time, was not maintained, and, the girl relapsing, she was taken by her mother to the Women's Hospital, under the care of Mr. Tait. On Jan. 22nd, 1885, Mr. Tait states that he opened the abdomen again, and makes this assertion:—"I found that her statement [the patient's] was accurate. The uterine appendages on the left side had been completely removed; I found the ligature which was applied to the pedicle in its place; I picked it off and have it in my possession now. I found the disease, which I assumed as existing on the left side in July, 1884, very fully advanced on the right side, and I accordingly removed the appendages there." He addressed a printed letter to the chairman of the General Hospital Committee, which was also circulated outside, embodying this statement and commenting with undisguised vigour upon what he called an extraordinary mistake in the records of the hospital. The opportunity was taken in the same letter to discuss the question of hospital mortality "chiefly with a view to what he believed the real public welfare, and not from any spirit of antagonism to this great and valuable institution." The accuracy of the hospital record, I maintained at the time, was without doubt. It was attested by the house surgeon, Mr. Awdry, who wrote as follows:—"The case was one I corresponded with Mr. Tait concerning. If that be so, I am prepared to swear that no ligature was applied, and that no ovary was removed. If it was, you slipped it up your sleeve unobserved by me. I remember it very well, and in my letter to Mr. Tait I told him an exploratory incision had been made for purpose of diagnosis, and nothing else done." Some members of the committee also satisfied themselves as to the truth of the entered record by evidence from those present at the time of the operation. There was no motive in the account written by

the house surgeon and signed by me, and no reason for its not being strictly correct.

Now, as to the sequel. The patient returned to my care at the General Hospital shortly afterwards as bad as ever. I have kept her under observation and treatment for years—indeed, ever since this alleged occurrence of both ovaries—"uterine appendages"—being *completely* removed. She has menstruated regularly; as she described it, "as regular as the clock." In the beginning of the year 1890 she was married, and on Dec. 24th in the same year gave birth to a full-grown living child. She brought the child to the hospital on Feb. 6th last as a living comment upon her previous illness and long-continued pain. The case is interesting; but I simply desire to state the facts as they happened, and to do so in order that those who are in possession of the printed letter referred to may add to this the subsequent history of the patient, and draw their own conclusions.

Birmingham.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium

LONDON HOSPITAL.

A CASE OF OSTEO-SARCOMA OF THE PELVIS NEARLY FILLING THE PELVIC CAVITY; LABOUR AT TERM; CÆSAREAN SECTION.

(Under the care of Dr. HERMAN.)

WE have during the last few years published several[1] cases illustrating the treatment of patients by the Cæsarean section, or that method followed by Porro's plan of removing the uterus, for deformity with contraction of the bony pelvis, the result of rickets. The most frequent condition which requires this operation is undoubtedly some deformity due to disease of the pelvic bones, and it is rare to meet with a state such as that seen in this patient, where a large sarcomatous growth made any chance of delivering the child by the natural passages an impossibility. By the operation the life of the child was saved, and that of the mother not materially shortened; indeed, the partial examination made post mortem proved the success of the operation, so far as the parts more immediately involved were concerned. In cases such as this under the care of Dr. Herman the necessity for the operation is so evident that the question of delivery by any other method than through an abdominal incision does not require consideration. In malignant disease of the cervix, discovered only when full time approaches, it has been possible to remove the diseased uterus[1] and prolong the life of the mother, but the disease is usually too far advanced to admit of more than hysterotomy.[2] For the notes of this case we are indebted to Dr. E. O. Ashe, resident accoucheur, and Mr. J. Pugh Jones, clinical clerk.

H. S——, aged thirty-seven, was admitted into the London Hospital on March 2nd, 1891. When admitted, she was said to have had labour pains for eighteen hours. She could not say whether the membranes had ruptured or not. Her husband said that neither he nor his wife had supposed that she was ill until the advent of labour.

On admission, the patient was thin and cachectic-looking. The uterus reached to the ensiform cartilage. Between the pains a hard mass could be felt filling the left iliac fossa; in front of this a fluctuating swelling (the bladder). The perineum was pressed down and œdematous. Both labia were swollen and œdematous, the left the more. On vaginal examination, the pelvis was found so filled with a hard elastic tumour bulging from its left wall that the fingers could not be inserted between the right pelvic wall and the greatest diameter of the tumour. The urethra seemed blocked; a catheter could not be got through it. At 2.30 A.M. the patient was put under ether and Cæsarean section performed by Dr. Herman. On opening the abdomen the fluctuating tumour above mentioned was seen to be the full bladder. On opening the uterus, the placenta was found attached to the anterior uterine wall. It was cut through, and the child extracted by the foot. The placenta was then extracted, partly by digital separation and partly by compression of the uterus. The uterus was not turned out of the abdomen before it was opened, but the abdominal walls were pressed close to it by an assistant, and after the child had been extracted the uterus was expressed from the abdomen and the lips of the abdominal incision held close together behind it while the sutures were being put in. After the child and placenta had been removed a catheter was passed and the bladder emptied. A hypodermic injection of ergotin was then given. The uterus was then sutured (after its interior had been swabbed out with sublimate solution), first with interrupted silk sutures passing through the peritoneum about one-third of an inch from the edge of the incision, and not including the decidua, and then with a continuous catgut suture, entered and brought out on each side through the peritoneum, so as to bring the peritoneal surface close together throughout the whole length of the wound. The abdominal wound was then closed in the usual way. After the operation the pulse was 140, but in half an hour it had come down to 100. The child was living and survived. During the following three days the pulse varied between 120 and 140. The temperature showed a slight gradual elevation, reaching on March 5th 100·5°, which was the maximum. The patient complained a good deal of severe paroxysmal abdominal pain, which, except as to its unusual severity, seemed to be like after-pains, but there was no continuous pain and very little abdominal tenderness. From March 3rd onwards there was frequent vomiting and a good deal of flatulent distension of the abdomen. There was throughout need for the catheter, and great pain and difficulty in passing it. There was never more vaginal hæmorrhage than after an ordinary confinement. The œdema of the vulva and perineum persisted.

The patient died on March 5th, at 6 P.M. A complete post-mortem examination was refused, but the abdominal wound was reopened, and an examination of the pelvis and parts concerned in the operation was made by Dr. Charlewood Turner. There was no peritonitis. The uterine wound was perfectly healed, the sutures being buried and covered with a layer of smooth shining lymph. The mass in the iliac fossa and pelvic cavity was an osteo-sarcomatous growth, the interior of which was broken down into a cavity containing blood and pus. As the necropsy was incomplete, the precise mode in which death was brought about remained unascertained.

Remarks by Dr. HERMAN.—In this case Cæsarean section, which was absolutely necessary, failed to save the patient's life. Yet if we leave out of sight the disease from the effects of which the patient died—although the precise mode of death, the necropsy being incomplete, cannot be defined—and look at the operation only, the case was perfectly successful. There was no peritonitis, the uterine wound was well healed; there was no hæmorrhage. Had the patient been healthy there is no reason to doubt that she would have recovered.

[1] Brancamat, Sajous, vol. ii., 1890, p. 17.
[2] Gandell, Phil. Med. Times, 1890.

MANCHESTER ROYAL INFIRMARY.

TUMOUR OF THE BLADDER; OPERATION; RECOVERY.

(Under the care of Mr. SOUTHAM.)

THE case illustrates the facility with which a vesical growth may be removed through the perineum when it is of small size, of soft consistence, and situated near the neck of the bladder, so as to be easily within reach of the finger. If on exploring the bladder the tumour, on account of its size or situation, is found to be not removable by this route, the perineal opening is no bar to the performance of suprapubic cystotomy, but is rather useful than otherwise, inasmuch as it affords a means of combining free drainage in the most dependent position during the after-treatment of the case.

James T——, aged sixty-five years, was admitted on Aug. 13th, 1890. He had enjoyed good health until about six months previously, when he began to suffer from a painless hæmaturia, which at first was intermittent. Latterly

the bleeding had become continuous and very profuse, so that he was in a very feeble condition. The urine was acid in reaction, and of a bright-red colour owing to the presence of blood in considerable quantity. It was passed without any pain or straining, and micturition was not increased in frequency. More blood was present at the end than at the commencement of the act, and it was often passed in the form of distinct clots. The history of the case and the character of the bleeding pointed to the presence of a vesical tumour, probably of the nature of a papilloma, and the diagnosis was confirmed on careful examination of the urine, for on several occasions minute particles were found floating in it, which, examined microscopically, showed the typical structure of villous processes. Removal of the growth having been decided upon, it was resolved to make the attempt through a perineal opening, for on account of the weak state and advanced age of the patient it was thought that perineal urethrotomy would be a less serious procedure than supra-pubic cystotomy. If, however, this was found impracticable, then at once to proceed to open the bladder from above the pubes.

August 28th.—Perineal urethrotomy was performed in the usual way. On introducing the finger into the bladder a sessile tumour the size of a walnut was felt on the left side at a little distance from the neck. It was of such soft consistence that it was easily removed by scraping with the finger nail and a Volkmann's spoon. Somewhat free bleeding attended the process, but it was arrested on washing out the bladder with hot water. The perineal wound was somewhat slow in healing, urine escaping through it until the end of the fourth week. After this date it was completely closed, and the patient left the hospital a fortnight later, passing all his urine by the natural channel, there having been no bleeding since the operation. Microscopical examination of the growth removed showed it to be of the nature of a papilloma.

Feb. 1891.—There has been no recurrence of the hæmorrhage. The patient remains in a feeble condition, but is entirely free from bladder symptoms.

SAMARITAN HOSPITAL FOR WOMEN, BELFAST.

TWO CASES OF RETENTION OF URINE, CAUSED BY THE PRESSURE OF PELVIC TUMOURS AND FOLLOWED BY SUPPRESSION.

(Under the care of Dr. W. K. MCMORDIE.)

THE following cases demonstrate the fact that advanced chronic disease of the kidneys, the result of obstruction to the urinary passages, whether by stricture of the urethra or the pressure of growth from outside, not uncommonly proves fatal from suppression of urine when the patient is subjected to operation. That the operation was necessary in each case there is no doubt; it is to be regretted that the patients did not submit themselves at an earlier date, for it is probable that in both success would have been attained had they done so. The second case illustrates some of the risks attending tapping ovarian cysts.

CASE 1. *Vaginal fibroid, causing complete retention.*—M. F——, aged forty, a single woman, was sent to the hospital on July 30th, 1890, by Mr. Beck. He stated in a letter "that the vagina was blocked up with a tumour, that she could not micturate, and that there was no room even for the smallest catheter." In addition to what was described in his letter the abdomen was distended with a fluctuating tumour reaching as far as the umbilicus. Both lower extremities were swollen and œdematous. For a year previously to her admission she had suffered from constant hæmorrhage, a frequent desire to micturate, and pain in the hypogastric region. She was weak and anæmic. For seven days previously to her admission she had been unable to pass any urine. Temperature 101°. Under the influence of an anæsthetic the tumour was successfully removed. It grew by a short thick pedicle about one inch in breadth from the fundus uteri. Over three quarts of fetid ammoniacal urine were drawn off. Only a very small quantity of urine was secreted for some days. This was followed by complete suppression, and she died from uræmic poisoning on Aug. 13th.

Remarks.—Such a state of matters as is here described caused by pressure must be very rare; but partial retention caused by pressure of pelvic tumours and adhesions is a frequent cause of the bladder troubles so common in female ailments. With partial retention in existence for some time, then complete retention suddenly coming on would be more likely to act quickly on the kidneys.

CASE 2. *Bladder cyst caused by an adherent ovarian cyst.*—S. W——, aged fifty-six, with a large ovarian tumour, was sent to the Samaritan Hospital for operation by Dr. Forsythe of Coleraine. The measurement round the umbilicus was forty-nine inches. The patient had been tapped once three years previously to her admission to hospital. She complained of a constant dribbling of urine, and on passing the catheter not more than an ounce of urine was at any time drawn off. Sp. gr. 1015. On July 8th, the usual incision for an ovariotomy having been made, twenty-eight quarts of thick dark fluid were drawn off. No separation in any direction could be made between the cyst wall and the peritoneum. What appeared to be a second cyst protruded from the pelvis into the cavity of the large cyst. A trocar was passed, and three pints of fetid urine were drawn off. The hole in the bladder was carefully sutured with fine catgut, and no trouble followed from this mishap. A drainage-tube was left in and the large cavity daily washed out with a 1 per cent. solution of boracic acid. The cavity steadily contracted without an unpleasant symptom for four weeks, when no more than three quarts of water could be injected. The patient could walk about and her recovery seemed assured, when suddenly symptoms of uræmic poisoning appeared and she died on Aug. 14th.

Remarks.—At the operation the anæsthetic was administered by Dr. McKinney and Dr. Henry O'Neill assisted. The very intimate adhesion between the cyst wall and the peritoneum was no doubt caused by the long continuance of the tumour and the fact that it had been tapped three years before I saw her. Tapping ovarian cysts is even yet an operation frequently performed in this part of the kingdom. In cases of simple cysts often repeated again and again, it is one of the great difficulties operators have to contend with.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY

The Value of Tuberculin in the Treatment of Surgical Tubercular Diseases.

AN ordinary meeting of the Society was held on April 28th, the President, Mr. Timothy Holmes, in the chair.

Mr. WATSON CHEYNE read a paper on the Value of Tuberculin in the Treatment of Surgical Tubercular Diseases, of which the following is an abstract. In this preliminary communication the author referred in the first place to the method of administering the drug. In most of his cases the mode of administration was that recommended by Dr. Koch, in which the occurrence of reactions was the guide to the dose. The objections to this method were pointed out, and another plan, which the author had been using for some time, was described. It consisted in establishing tolerance as regarded the general action of the drug as quickly as possible, and then repeating the doses in rapid succession so as to keep up a constant local action. For example, if the initial dose of, say, two milligrammes produced fever, the second dose of the same amount was given as soon as the fever had subsided, probably in two days; so with a third: and in most cases after four or five injections no further febrile reaction occurred with this dose. The same quantity was then injected twice daily, and after two or three days thrice daily. After three or four days the amount was increased, till ultimately doses of one to two or more decigrammes were given thrice daily; in this way a large amount of the fluid could be rapidly introduced without the patient suffering from fever after the first three or four doses, and with marked improvement as regarded the local condition. Another method of administering the fluid was that of giving considerable doses at long intervals so as to avoid the establishment of tolerance. The method most commonly employed of giving small doses at considerable intervals was condemned as being one hardly likely to do any good, and not unlikely to increase the risk of dissemination of

the disease. The various phenomena observed after injection were referred to very shortly, and the dangers were then discussed. It was pointed out that the danger of dissemination of the disease had been greatly exaggerated, and that the main danger was where the tubercular disease was combined with sepsis, and was due to extension, not of the tubercular, but of the septic process. The question as to what the treatment could do was discussed on the basis of the microscopical appearance of tissues removed after treatment, of experiments on animals, and of clinical observations on man, and the following conclusions were arrived at:—In the first place, in the majority of cases the first effect of the treatment was to produce improvement as regarded the tubercular disease, the degree of improvement varying according to the circumstances of the individual case and the mode in which the remedy was applied; but it was very rarely that this improvement went on to complete cure unless aided by other measures. In most cases, after improvement had gone on for some time it came to a standstill, and if the treatment was given up at this stage, or within three months and a half (the limit of the author's experience), relapse would almost certainly occur. The great question, one which, however, affected medicine more than surgery, was whether by continuing the treatment the disease could be kept at a standstill. The facts observed by the author seemed to show that by continuing the treatment with this object in view the condition of standstill could be maintained in a number of cases for a considerable time. As regarded the length of time, the author could only say four months and a half, the length of his experience; but it seemed not improbable that it could be maintained longer, and of course the longer it was maintained the greater the probability that the tubercle bacilli would die out, and the improvement become permanent. As had just been said, this question affected medicine more than surgery, for in surgery matters could generally be hastened in other ways. The diagnostic value of the remedy was then considered. As regarded surgical practice the conclusions provisionally come to were the following: In cases of intractable lupus tuberculin was of great value when combined with other measures. In tubercular glands it hardly repaid the trouble and inconvenience except in so far as it might reduce the periadenitis, and thus pave the way for operative measures. In diseases of joints the question as to its place could hardly as yet be definitely settled, but the author was inclined to think that it was best not to employ it in the early stages, but to reserve it as a means, after operation, of aiding the prompt healing of the wound. It might also be of value in enabling the surgeon to perform less severe and radical operations than he might otherwise do. In cases of osseous disease it would probably only be useful after operation. In genito-urinary tuberculosis it could seldom come into play on account of the great frequency with which these diseases were combined with sepsis, and for other reasons. In tubercular laryngitis it appeared to be of use in certain cases. While admitting the small value which could be attached to his opinion as regards phthisis, the author could not but think that the dangers of tuberculin in that disease were being unduly magnified and its benefits unduly decried. Some of the imperfect results were no doubt due to timidity in the application of the remedy. Mr. Cheyne showed, by means of the magic lantern, some excellent photographs, taken by Mr. Andrew Pringle, of microscopical preparations of tubercular lesions at various stages during the treatment. They exhibited well-marked retrogressive changes, the epithelioid cells becoming disintegrated, the intermediate zone being invaded with small round cells, and the gradual development of these into fibrous tissue.

The debate on this paper was adjourned to a special meeting of the Society on Thursday, May 7th.

CLINICAL SOCIETY OF LONDON.

Old Dislocation of Patella reduced by Intra-articular Operation. — Pseudo-hypertrophic Paralysis. — Estländer's Operation. — Gastro-jejunostomy for Pyloric Obstruction.—Congenital Heart Disease.—Recurrent Dislocation of Patellæ.—Lupus Erythematosus cured by Internal Treatment.—Plastic Operation for Vesical Extroversion.

AN ordinary meeting of this Society was held on April 24th, the President, Sir Dyce Duckworth, in the chair.

Mr. BILTON POLLARD showed a girl with old (congenital?) Dislocation of the Patella reduced by an intra-articular operation. There was a history of injury in the year 1885, but the limb had been weak as long as she could remember. An operation for genu valgum had been done, but this did not improve the position of the patella. He first cut down on the outer side and divided the vastus externus, and then an incision was made on the inner side of the patella and the joint opened. The outer border of the trochlear surface of the femur was removed with the chisel and a broader articular surface cut. A portion of the capsule on the inner side was resected in order to brace up the structures in that situation. The result was a perfect restoration of the functions of the joint.

Dr. J. TAYLOR showed, for Dr. Hughlings Jackson, two cases of Pseudo-Hypertrophic Paralysis. The first was a boy aged thirteen, who had enlargement of the calves, wasting about the shoulders and thighs, characteristic gait, lordosis, and inability to go upstairs without help. The lowest part of the trapezius was paralysed; the displacement of the scapula, however, was not characteristic of this lesion only, but was due to concomitant paresis of the levatores anguli scapulæ. A boy aged eleven, the brother of the preceding, was also exhibited. He was suffering from the same disease, but of a much less advanced form. No other members of the family were affected.

Dr. J. TAYLOR likewise showed, for Dr. Bastian, a girl aged fourteen affected with the same disease in a very marked form. There were weakness and atrophy of the biceps, of the muscles about the scapula, and hypertrophy of the triceps, deltoid, and calf muscles. The case was shown on account of the occurrence of a pseudo-hypertrophic condition of the first dorsal interosseous muscle in each hand and of the marked enlargement of the tongue. Both conditions were uncommon, the former, according to Dr. Gowers, being extremely rare. There was here also no family history of similar affection.

Mr. F. B. JESSETT exhibited a girl, aged seventeen, on whom he had performed Estländer's Operation or Thoracoplasty. In 1886 she was attacked by pleurisy in the left side, followed by empyema, for which drainage-tubes were inserted. In 1888, an intractable sinus being present, and the patient losing flesh, an incision was made, and considerable portions of the third, fourth, fifth, sixth, and seventh ribs were removed. After a few months the sinus closed, and she was at present quite well, there being very little flattening of the chest and only a slight degree of spinal curvature.

Mr. JESSETT also brought a woman, aged fifty-six, on whom Gastro-enterostomy had been performed for pyloric cancer. She had complained of dyspepsia for some years, and in 1889 felt a lump in the epigastrium, which had slowly increased in size, causing pain and vomiting. In April, 1890, the growth having much increased and the stomach being greatly dilated, gastro-jejunostomy was performed, the incision being in the right linea semilunaris. Senn's plates were used, a few Lembert's sutures being added for precaution. She made a good recovery, and was at present taking solid food, which she could not do before the operation.

Dr. EWART and Mr. W. H. BENNETT likewise showed a case of Gastro-jejunostomy two months after operation. The patient, a drayman aged fifty-two, was admitted into St. George's Hospital under the care of Dr. Ewart on Feb. 14th, 1891, with symptoms of pyloric obstruction. There were great emaciation, frequent vomiting, and a constant feeling of discomfort and distension over the whole abdomen. The stomach was much dilated, the vomited matters very acid, and to the right of the umbilicus a hard movable mass, about three inches in its longest diameter, could be felt. On Feb. 27th, Mr. Bennett performed abdominal section through the middle line above the umbilicus, and found the pylorus involved in a movable tumour free from adhesions, the nature of which was not quite clear, although it was probably malignant. Gastro-jejunostomy was then performed, Senn's decalcified bone plates being used. The patient quickly rallied from the immediate effects of the operation, and made a rapid and uninterrupted recovery. Food was given by the mouth within twelve hours after the operation, and retained with comfort. No dyspeptic symptoms of any kind had occurred since, although the patient's appetite was very large. The size of the stomach was only about half of that prior to the operation. The motions, formerly very pale, were now natural in colour, and up to the present date there had been an increase in weight of two stones and a half. In spite

of careful examination of the motions, nothing had been seen of the bone plates or the sutures used in approximating them.

Dr. F. HAWKINS showed two cases of Congenital Heart Disease. The first occurred in a boy aged twelve, and was regarded as an instance of pulmonary stenosis with regurgitation. It was peculiar in that the heart lay to the right side, while the other viscera were not displaced. The second patient was a girl aged nineteen, and the lesion was pulmonary stenosis.

Mr. W. H. BATTLE exhibited a woman aged twenty-one, who was the subject of Recurrent Dislocation of the Patella. It was curious that it did not come on till she was sixteen years of age. She was able to keep the bones in place by a splint, to which was attached a semilunar pad on the outer side.

Mr. BATTLE also showed a woman aged twenty-seven who had been the subject of Lupus Erythematosus, which had been cured by internal treatment only. The drugs used were liquor arsenicalis in doses increased from three to ten minims, and combined with increasing doses of the syrup of iodide of iron.

Mr. BATTLE likewise showed a third case of Plastic Operation for Extravasation of the Bladder in a boy aged ten, the result being a very good one. On March 7th a flap was turned down from the median part of the abdomen, the scrotum was dragged up, and the penis brought out through a hole made below it. On April 1st the skin covering the abdominal walls was separated laterally and brought together in the median line. There was no suppuration, the boy was wearing a urinal and walked with comfort.

Dr. SAMUEL WEST sent a case of Spontaneous Fracture of both Calcanea in a case of tabes dorsalis. The patient was a woman aged fifty-one, who had been tabetic for five years. Six weeks ago, on attempting for the first time to walk with assistance, after lying in bed for three months, she noticed something snap in her right foot. Three days later, on again attempting to walk, she experienced a similar snap in the left foot. It was found on examination that a semilunar fragment two inches long and an inch broad was detached from either calcaneum and drawn up about one inch by the calf muscles. There was fibrous union on each side, with some bony union also on the left. The fracture was attributed to the fact that in walking the heels were brought forcibly to the ground. There was a history of gout.

Mr. W. H. BROWN of Leeds read a paper on a case of Gastro-jejunostomy. The patient, a woman aged fifty-six, had suffered from dyspeptic trouble for twelve months. Vomiting had commenced and excruciating pain followed on the introduction of the smallest quantity of liquid into the stomach. There was a well-defined sausage-shaped swelling to the right of the umbilicus, and the outline of the distended stomach could be readily seen. The abdomen was opened in the middle line, and the growth made out to be involving the pylorus and first part of duodenum. A piece of jejunum was seized and opened, and a second opening was made in the anterior wall of the stomach and Senn's plates introduced. The patient bore the operation well, and the pain entirely disappeared. She was able to take liquid food well. She lived four months after the operation in comfort, the pain only returning a few days before death, which was due apparently to the extension of the disease.—Mr. F. B. JESSETT asked if care had been taken to make the opening in the jejunum as high up as possible. The directions usually given to find the upper part of the jejunum were misleading; for, the colon being hooked up, the omentum should be drawn over to the right, and not to the left, as generally recommended. He had performed this operation five times, with three successes, two of the patients being at present alive. He inquired as to the material used for sutures. He had at first used silk for all the sutures, but finding it in one case undigested he had since used chromicised catgut, which answered admirably. In one case it was on record that the communication had closed up; therefore the opening both in the stomach and the small gut should be large, and the sutures placed near the opening. The patient might be fed next day with perfect safety. He had generally used from three to six Lembert's sutures to prevent tilting of the plate.—Mr. W. H. BENNETT said that these cases showed the greatest conceivable improvement after this operation, though of course it left the disease behind. As compared with pylorectomy and the modified Loreta's operation, it was far superior under any circumstances, even if the disease were not malignant. It diverted the flow of digestive fluid from the seat of the disease, and the patient was as well off with the artificial as with a real pylorus. If pains were taken to get near the duodenum no harm to the digestive process resulted from this short-circuiting. It was very important to feed these exhausted patients very early. He agreed that the omentum should be drawn over to the right, and not to the left, and that accessory Lembert's sutures were useful to prevent tilting of the plates. In the plates themselves he recommended catgut for the lateral and silk for the end sutures. He asked the reason for the vertical incision in the stomach.—Mr. STEPHEN PAGET understood that swelling of the parotid was observed. This was not to be considered as a sign of sepsis, for he had found that in other cases of abdominal section it had been of innocent character.—Mr. C. J. SYMONDS said he had performed this operation two days ago. He had difficulty in finding the jejunum, for he had pushed the omentum over to the left. He was a little afraid that the plates he had used might give him trouble owing to their size; the small intestine looked very flat after the plate was inserted. To prevent kinking he had also fixed the jejunum to the stomach a short distance beyond the plates.—Mr. LANE said he had been in the habit of reinforcing the plates by secondary sutures, and as he fixed the posterior ones before he drew the plates together, he had no difficulty in getting them in place.—The PRESIDENT remarked that Mr. Paul of Liverpool had been recently using a cylinder of decalcified bone for this purpose, and the opinion in that town seemed to be that it was a great improvement on the previous methods.—Mr. W. H. BROWN, in reply, said that he found the top of the jejunum by turning the omentum to the right and tracing the small gut up to its origin. He used silk both for the bone plates and the extra sutures. He was glad to know that Senn in a recent paper had advocated the use of these accessory sutures. He performed, previously to the operation, several experiments in the post-mortem room, and from what he saw there he was convinced that the vertical incision in the stomach was the best, and the parts appeared to lie more naturally afterwards. It was the fourth time that he had observed intercurrent parotitis in abdominal operations, the others being two simple cases of ovariotomy and one of exploratory laparotomy. He was glad to hear early feeding so well spoken of, as he was warmly criticised for adopting it in his case.

MEDICAL SOCIETY OF LONDON.

Genu Recurvatum.—Ectopia Viscerum.—Excision of Tongue.

AN ordinary meeting of this Society was held on April 27th, the President, Dr. Douglas Powell, in the chair.

MR. EDMUND OWEN showed an Irish girl of three years and three-quarters who had been the subject of congenital Genu Recurvatum. The mother had had typhus fever seven or eight months before the confinement, when she had imagined herself to be a fish. It was improbable that this active imagination had any influence in causing the physical defect. The child had evidently been badly packed in utero, for though it was a "head first" presentation, the feet emerged resting upon the shoulders. On admission to the Great Ormond-street Hospital the child's favourite attitude was sitting, with the back of each foot resting upon the collar-bone, the knees being hinged with the salient angle backwards—like a stork's. The heads of the tibiæ were displaced so far forwards upon the trochlear surfaces that the back of the femoral condyles and the intercondylar notch could be clearly defined in the popliteal space. There was a transverse furrow at the front of the knees, in the retiring angle, close above which the patellæ could be made out. Flexion of the knees in the proper direction was absolutely impossible; even when the child was under the influence of chloroform the legs could not be brought into a line with the thighs. On Feb. 11th Mr. Owen divided the quadriceps extensor on each side by a free transverse incision, which fully exposed the trochlear surfaces. The wounds were closed with continuous sutures and dressed with sublimate gauze, the limbs being fixed straight in a box splint. The incisions healed promptly. The knees could now be flexed to a right angle, and the child was acquiring some power over them, Mr. Sydney Jones, the registrar, noting on April 21st

that she could easily stand on the right leg. Massage and manipulation were still being employed. Mr. Owen remarked upon the comparative rarity of the deformity. The instances which he had previously met with had been in infants; he had never seen so marked a case as this, nor one which could not be remedied by treatment less severe than that of myotomy. This operation had been preferred to tenotomy of the ligamentum patellæ, as possibly promising a better immediate result and permanent improvement.—Mr. ADAMS congratulated Mr. Owen on the excellent result he had obtained, though he himself would have preferred to have done the operation subcutaneously.

Dr. T. ELLIOTT of Tunbridge Wells read a paper on, and showed a specimen of, Ectopia Viscerum in a newly born male infant. The mother had had a favourable labour. She was thirty-eight years of age, had borne seven children before, and the only one presenting any abnormality was the eldest son, who had a slight deformity of the left ear. There was no history of "maternal impression." The child was born at full term and was well developed and perfect in every respect, except in the region of the abdomen. It weighed 6 lb. 6 oz., and was eighteen inches high. In the abdominal wall there was a large opening situated to the right of the attachment of the umbilical cord, measuring four inches and three-quarters in circumference. The organs which had protruded through the opening and were lying outside included the lower three-quarters of the stomach, the whole of the small intestine and colon to within three inches of the anus, the testes, and mesorchia, and a part of the bladder. All the coils of the intestine were matted together by recent lymph, and the remaining viscera which protruded were similarly covered.—Mr. EDMUND OWEN had seen two or three examples of this surgical curiosity, and it was not uncommon every now and then to see a small coil of gut in the proximal end of the cord. He had always found a thin filmy membrane covering the bowel, but in the case under discussion this film appeared to have been ruptured in the act of birth.

Mr. WHITEHEAD of Manchester read a paper on 104 cases of entire Excision of the Tongue, which will be published in full in our next issue.—The PRESIDENT inquired if there was any difficulty in deglutition after removal of the tongue, necessitating food to be taken in the semi-solid form. He asked also if there were any danger of food regurgitating into the trachea and whether recurrences were commoner *in situ* or at distant parts. The chief object of the operation was the relief of suffering caused by the local disease in the mouth, and if recurrence *in situ* were commonest and the patient stood the chance of having the same suffering in the mouth in a month or two he would, perhaps with some reason, be reluctant to submit to an operation; but if recurrence took place in a distant part, then death generally happened in a gentler manner. He inquired whether the very large dose of morphia had been administered by mouth or subcutaneously.—Dr. PURCELL said he had adopted this method of operating since the appearance of Mr. Whitehead's first paper on the subject. He preferred to have the patient with his head hanging over the end of the table, for this gave better light and facilitated manipulation. He did not find that dividing the jaw after Syme's method was a satisfactory procedure, for recurrent disease soon attacked the bone, and the state of the patient was made worse. He preferred to operate with the galvano-cautery, the wire being passed from outside the neck through between the two pillars of the fauces, and the amount of electricity being limited to one cell of a Groves' battery in order to cut slowly. Kocher's method of operating was efficient in bad cases. After the operation he was in the habit of feeding by the œsophageal tube.—Mr. BRYANT said that his ideas on this subject were in accord with those of Mr. Whitehead. In his early days he used the galvanic écraseur, and was so pleased with it that, after once abandoning it, he returned to it again. But later still he had discarded it once more on account of the septic condition in which it left the month after the operation. The scissors or the knife was preferable, and he had invariably adopted Mr. Whitehead's method for the last few years. He pointed out that a finger placed at the back of the tongue readily controlled the lingual arteries, and they could be then picked up and twisted. The operation could thus be made practically bloodless. It was perfectly right to remove the glands when one could, but he had not always done this at the same time as the ablation of the tongue; he preferred, especially in old subjects, to leave it till a few days later. He looked upon the ligature of the linguals from the neck as an unnecessary procedure, though the same incision was handy for removing the glands beneath the jaw. As to taking away infiltrated glands deeper down, he had grave doubts whether this was altogether justifiable, and he should not have much faith in recommending it. As to results: he knew of a great many of his patients who were alive at the present time whose tongues he had removed ten or twelve years ago. Referring to the recurrence of growth *in situ*, he thought that usually it was the continued growth of something which had been left behind at the first operation. He always recommended an early attack on such cases, and he quoted three instances where excellent results had followed these second removals, one being alive thirteen years afterwards, one six years, while the third had not been heard of since three years after the operation. He considered that death in two-thirds of the cases occurred through involvement of the deeper set of cervical glands. As a varnish, he had been in the habit of using the ethereal solution of iodoform with collodion, and into this he dipped bits of iodoform gauze, which he placed on the stump.—Mr. BUTLIN, referring to the classification of cases, said that it was not so much the comparison of cases where half or the whole of the tongue had been removed, as to whether or not there were complications present, such as adhesion to the jaw or involvement of glands. He was astonished at the number of cases in which Mr. Whitehead had removed the entire tongue. In the London hospitals, if there were growth anteriorly, it was the custom to remove only a portion of the tongue, and recurrence after this partial operation was rare. He remarked that it was very difficult to tell where the secondary glandular affection would occur. Operations on what would be called hopeless cases were not usually practised, but operation was only done where there was a reasonable chance of removing the whole of the disease in the mouth. In one case he dissected extensively in the neck and laid bare the carotid sheath; but he regretted doing so, for the wound did not heal, and he believed that the patient died somewhat earlier than he otherwise would have done. Our hopes usually lay in cases which allowed a small operation for removal of limited cancerous disease. He asked the author if he had adopted the bringing together of the two sides of the wound. He himself usually covered it over with iodoform, and fed either with an œsophageal tube or with a feeder to which a rubber tube was attached. The mortality after the operation for removal of the tongue was at present very small, and the deaths from septic pneumonia had diminished very largely under modern methods of treatment.—Mr. WHITEHEAD, in reply, said he had allowed his patients to swallow food naturally on the day after the operation without any adventitious aid whatever. Recurrence was usually confined to the cervical glands. As he had had to tie the linguals in every case in which he had used the galvanic écraseur, this led him to abandon that method and remove with scissors, the arteries being twisted. He urged the importance of recommending the patients to submit to early removal, and not to wait until the glands were involved. He had never found it necessary to apply pressure to the back of the tongue. For checking hæmorrhage he employed torsion only, and he had never once had secondary hæmorrhage since he had adopted it. When the disease extended to the glands their removal was practised to relieve pain. As for the danger of operating on the neck, every vessel and nerve on one side might be cut and the patient be practically none the worse for it, and he saw no reason why in removal we should stop short of any boundary save that which limited the disease itself. He had practised sewing up the wound by bringing the mucous membrane together from before backwards, but he had found this impede considerably the movements of the epiglottis.

HARVEIAN SOCIETY.

Offensive Lochia.—Leucorrhœa.

A MEETING of this Society was held on March 5th, Mr. H. Cripps Lawrence, President, in the chair.

Dr. BOXALL, referring first to cases of sepsis after childbirth without fetor, related a case in which the patient died of septic infection, although the lochia proceeded

naturally without offensive smell. Turning next to cases without sepsis, he related other cases in which fetor was present without septic symptoms or illness of the patient. He remarked that in the life history of saprophytic germs lay the explanation of fetor, and that in them and their liability to be associated in various ways, according to circumstances, with pathogenic organisms was to be found the reason why fetor is often present, but sometimes absent, in cases of septic infection (septicæmia). And, further, that, as toxic principles evolved during the process of putrid decomposition were by no means necessarily absorbed into the system of the patient, septic intoxication (sapræmia) did not invariably take place even when the discharges became offensive. He had tabulated a series of 120 cases of offensive lochia which occurred among 640 patients under close observation in the General Lying-in Hospital, where they were all placed under similar conditions, the whole series being completed before the introduction of sublimate as an antiseptic. By the aid of these tables he showed the influence of the character of labour on the incidence of fetid discharges during the puerperium. He discussed the relation of fetid discharges to elevation of temperature, and proved that, though fetor was as a rule associated with fever, the rise of temperature almost invariably precedes the altered character of the lochia. He further discussed the relation which fetor bears to sepsis, and demonstrated that as an indication of septic infection (septicæmia) or even of septic intoxication (sapræmia), the presence or absence of fetor in the lochial discharges is by no means an infallible guide. He remarked that in every case of offensive lochia, as fetor invariably indicates a failure to maintain local asepsis, vigorous antiseptic measures should be at once instituted. He deprecated the use of mere deodorants, and recommended that the vulva and vagina should be first washed and cleansed with a potent antiseptic such as sublimate, and that only after this has been done and where real necessity exists should the cleansing be extended to the interior of the uterus.—The PRESIDENT commented on the importance of remembering that fetor did not necessarily imply sepsis and *vice versâ*.

Dr. W. S. A. GRIFFITH, F.R.C.S., read a paper on Leucorrhœa. The author defined a vulvar discharge of mucus to be leucorrhœa where the quantity exceeds that which can be removed by the usual daily bath. Any discharge causing cutaneous irritation, or which is offensive though not excessive, he also regarded as leucorrhœa. Leucorrhœa might arise in three ways: (1) By the formation of an excessive quantity of an otherwise normal secretion; (2) by alterations in composition, as well as in quantity, of the ordinary secretions; (3) by the addition of some extraneous secretion. The normal secretions were, he said, almost entirely formed by the mucous membrane and glands of the uterus. The vagina had no glands, and being lined with true skin, not mucous membrane, could have no proper secretion, though it is possible that even in health there may be some transudation of fluid from its vessels. Vaginal mucus was uterine mucus retained in the vagina, and its acidity was due to decomposition. The mucus formed in the body of the uterus differs very slightly, if at all, from that formed in the cervix; it was perhaps less viscid. At the vulva the mucus of Bartholin's glands was added to that from the uterus; the other glands of the vulva were sebaceous and sudoriparous. The conditions which gave rise to leucorrhœa were described in detail, as well as inflammatory collections of fluid (pus or serum), which opening into the genital tract may also give rise to leucorrhœa. In the large majority of cases leucorrhœa comes from an intra-uterine source, and all such cases are divided into two classes: (1) those in which the mucous area of the uterus is enlarged; (2) those in which it is not enlarged. Dr. Griffith, in reply to Mr. D'Arcy Power, stated that in one case of myxœdema, whose uterus he had examined after death, there was present a cystic adenomatous degeneration of the mucous membrane, with a large secretion of mucus, but whether this was in any way connected with the major disease he could not say.

The meeting on March 19th was a "clinical evening," Mr. H. Cripps Lawrence being in the chair.

Mr. SILCOCK showed a man who had suffered from Distension of the Frontal Sinus, which not only caused prominent bulging of the bone over the left eyebrow, but also great protrusion of the eyeball and external strabismus. Trephining over the sinus was performed, the mucoid material filling the sinus removed, and drainage by a tube passing into the infundibulum re-established with marked amelioration of symptoms and of disfigurement. In reply to questions by several members, Mr. Silcock said that the infundibulum was blocked, and nothing short of trephining would have succeeded in removing the viscid mucoid fluid. Slight optic neuritis had been present. Recurrence did not take place after thorough drainage.

Dr. BATTEN showed: (1) A child recovering from dry catarrh of the trachea with crusts visible by laryngoscopy; (2) a woman, aged twenty-five, with symptoms somewhat resembling disseminated sclerosis. She suffered from epileptic fits, and had had slight right hemiplegia and aphasia. The right side of the face was smoother than the left. Tremors of the head and hand had come on after recent parturition. Testing for the exaggerated reflexes had induced an epileptic attack. The patient's peculiar gait and movements were demonstrated.—Dr. HANDFIELD JONES suggested that the case was one of hysteria after recent delivery.

The Symptoms of Shaking Palsy in a Hysterical Subject, by Dr. EWART.—The patient, a woman aged forty-two, had been weakened by dental trouble and by basic pleurisy and congestion, immediately after which her tremor and peculiar stoop began (three years ago). She also had influenza in December, 1889. Eleven weeks ago she had pain and slight swelling in her knuckles, followed by general pains, weakness, and ultimately inability to stand. When she was admitted, the slight arthritic affections, the stooping attitude, and the blank facial expression, suggested early rheumatoid arthritis. The two latter signs, coupled with the tremor, on the other hand, were equally in favour of beginning paralysis agitans. But the progress of the case entirely justified the diagnosis which was made of hysteria induced by weakness, and causing besides globus and right hypochondrial pain, a fine tremor of the right hand, and a spontaneous foot clonus of the same side, apt to arise in the sitting posture. Thanks to valerian and galvanism, the patient was now able to stand and to walk almost erect. The foot clonus and the tremor of the right hand, aggravated by attention, were still, however, present. The tremor never affected the left hand unless the right hand was steadied by an observer.

Friedrich's Disease, with Increased Knee-jerk, by Dr. EWART.—In spite of the absence of any history of ataxia in the ascendants or in the collaterals of the patient (female, aged nineteen), the above diagnosis was made on the following *positive* grounds: Slight tremor of the hands on purposive movement, slight lateral nystagmus, marked ataxia of the lower limbs, with very slight loss of sensibility, slight temporary affection of articulation (which had now become quite normal again), integrity of the cerebral functions, without any trace of hysterical manifestations; and on the following *negative* grounds: Absence of the papillary and visceral symptoms of tabes, absence of the spastic features of ataxic paraplegia, and absence of sufficient tremors, nystagmus, and cerebral affection to justify a diagnosis of disseminated sclerosis. The symptoms had begun at the age of sixteen, after which menstruation had become irregular, and had finally ceased. Some general gain in strength and in weight, and some improvement in the power of standing and of walking, and in the steadiness of the hands had resulted under rest, tonics, and massage. It was noteworthy that the affection of speech present a year ago had quite ceased, and that under the treatment above mentioned the right leg, which was previously the weaker, had improved at a quicker rate than the left, and was now the stronger. The exaggerated knee-jerk was the only feature not favouring the diagnosis, but this was a condition specially mentioned by Dr. Gowers and by Dr. Bastian as having been noted in exceptional cases. In reference to Dr. Ewart's second patient, Mr. D'Arcy Power mentioned that he had seen four members of a family affected with this disease whose parents were free from disorders of the nervous system and of speech.—Dr. HANDFIELD JONES commented on increased knee-jerk in hysteria.—Mr. KEETLEY showed a case of intra-articular exostosis of the knee, which latter he had removed as a loose body by operation.—Mr. POWER and Mr. ROUGHTON considered the structure removed more of the nature of an osteo-phytic growth from rheumatoid arthritis than of a true exostosis.—Dr. MAGUIRE brought forward, according to promise, a youth suffering from functional nervous disease, whom he had shown at the Society one year previously, and whose condition was then fully recorded. Time had not cleared up much that was obscure in the case. The President, Dr. Ewart, and Dr. Cleveland made some remarks.—Dr.

PHILLIPS showed a case of congenital atalectasis of lung with displaced heart, which excited much interest.—The President and Dr. Ewart spoke.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

A MEETING of the Section of Medicine was held on March 6th.

The Diagnostic Significance of Venous Hum in the Neck: a Study in Statistics.—Dr. BEWLEY read a paper on this subject. He said he had been induced to collect statistics bearing on it by reading a paper by Dr. R. Apetz, "On the Significance of Venous Humming Murmurs for the Diagnosis of Anæmic Conditions," in *Virchow's Archiv*, vol. cvii. He called attention to the differences of opinion held on this subject—some writers attributing considerable diagnostic importance to the presence of a murmur, others believing the phenomenon to be one of no importance. Dr. Bewley then related the details of his investigation. He examined only healthy individuals between the ages of sixteen and twenty-six, age having an important influence on the production of these murmurs. All the cases were examined either sitting or standing. He divided his cases into three classes: 1. Anæmic. 2. Slightly or doubtfully anæmic—i.e., cases which presented no appearance of anæmia, but yet suffered from some of the symptoms of this condition, or *vice versâ*. 3 Not anæmic. He examined in all 51 young men and 149 young women. Of these, 22 belonged to the anæmic class, 31 to slightly anæmic, and 147 to the non-anæmic. In 22 anæmic there were 19 murmurs, = 86·4 per cent. In 31 slightly anæmic there were 27 murmurs, = 87·1 per cent. In 147 non-anæmic there were 85 murmurs, = 57·9 per cent Dividing the non-anæmics into male and female—in 104 females there were 64 murmurs, = 61·5 per cent.; in 43 males there were 21 murmurs, = 48·8 per cent. The conclusions Dr. Bewley drew from these statistics were the following: 1. Murmurs are more common in the anæmic than in the non-anæmic. 2. More than half of those young persons who are not anæmic have a venous hum in the neck. 3. The presence of a hum is not of any diagnostic importance in any individual case The loudness of murmurs is not a matter of much diagnostic importance. In his cases Dr. Bewley noticed 15 very loud murmurs, distributed as follows: in 22 anæmic, 3 loud murmurs, = 13·6 per cent.; in 31 slightly anæmic, 5 loud murmurs, = 16·1 per cent.; in 147 non-anæmic, 7 loud murmurs, = 4·8 per cent. He had noted some of the loudest murmurs in particularly rosy and full-blooded persons, and therefore did not attribute any diagnostic value to even the loudest murmur. He added that Dr. Apetz's conclusions, based on very elaborate statistics, were almost identical with his own.—Dr. WALLACE BEATTY remarked that he had, in some cases, heard cervical venous murmurs in patients who certainly did not appear anæmic. Still he thought that the presence of this murmur might be a help in treatment. In one patient under his care, who suffered from persistent headache for months, and who had not an anæmic appearance or symptoms, the discovery of an anæmic murmur led to treatment by administration of iron, which brought about a rapid cure, a great number of other remedies having been previously tried in vain.—Dr. WALTER SMITH expressed his general concurrence with the views put forward by Dr. Bewley. Admitting as a fact that over 50 per cent. of non anæmic subjects present venous hum in the neck, still we have to deal with the occurrence of venous hum in over four-fifths of undoubtedly anæmic cases. Hence we should look for an explanation of this coincidence in the mode of causation of these murmurs, and the present theories as to the production of these phenomena could scarcely be regarded as satisfactory.—Mr. PATTESON remarked that his experience corroborated that of Dr. Bewley. From the observation of a large number of patients in a general out-patient department, he had long ceased to attach importance to the presence or absence of a venous hum from a diagnostic standpoint in anæmic cases.—The PRESIDENT concurred in the view expressed as to the real basis for coming to a conclusion being the physical conditions which produce such murmur, and until these were settled its variation must be a matter of theory. He called attention to the existence of venous murmurs under the first bone of the sternum, which by position was removed from the fallacies of extraneous influences. They were very much more rare in this situation than in the neck, and were, as far as he could depend upon his memory, invariably associated with some of the graver and more pronounced forms of anæmia.—Dr. BEWLEY, in reply, stated that he had purposely not entered on the discussion of the causation of venous murmurs, because he did not think these murmurs could be satisfactorily explained.

A Case of Myelogenous Leucocythæmia.—Dr. WALLACE BEATTY reported a case of myelogenous leucocythæmia, which had been under his care in the Adelaide Hospital in September, 1890. The patient, an unmarried woman, dressmaker by occupation, had been in ill-health for about three months. Seventeen days before she came into hospital she was attacked with erythema nodosum in her legs. On admission to hospital she was very anæmic; cardiac and cervical venous anæmic murmurs were present; the sternum was exquisitely tender. Dr. Bewley examined her blood; he found the white corpuscles greatly increased in number, the proportion of white to red being 1 to 5. The red corpuscles were diminished in number, being one million to a cubic millimetre. There was no enlargement of the lymphatic glands, and the spleen could not be felt. Dr. Bewley made the post-mortem examination. The spleen weighed 10 oz. Under the microscope it was normal, except that there was evidence of increased hæmolysis in sections stained with ferrocyanide of potassium and hydrochloric acid. There was no enlargement of the lymphatic glands. The marrow of the femur was red and fairly firm, not fatty. Under the microscope were found numbers of mononucleated white corpuscles, large and small red corpuscles (some normal, some irregular in shape), a few nucleated, spindle-shaped, connective-tissue cells, and a few oil drops. The liver was enlarged. On microscopic examination the liver cells were found atrophied in places, and there was a large number of leucocytes between the liver cells. There was no evidence of iron in the liver.—Dr. GRAVES asked what kind were the white cells found in the blood; also whether the red cells were altered in appearance. Dr. Jaksch states that it is probable that no case of pure myelogenic leucocythæmia has yet been recorded, and he mentions that one case which he saw, in which there were changes found in the medulla of the long bones similar to those mentioned by Newman, there was disease of the kidneys. In Dr. Beatty's case there was disease of the kidneys also.—Dr. WALLACE BEATTY, in reply, said, except that there was a great increase in the white corpuscles and a diminution in the red, there was nothing unsual observed by examination of the blood. The cloudy swelling of the renal epithelium he considered accounted for by the fever which was present.

Notices of Books.

Aphorisms in Applied Anatomy and Operative Surgery. By THOMAS COOKE, F.R.C.S. London and New York: Longmans, Green, and Co.—In the preface to this little work we find it stated that it is intended as little more than a syllabus of the work done in the author's courses of operative surgery, preceded by a few notes on the leading points in applied anatomy and surface marking. When the book is used in this manner, as an aid to the memory of work done in some class, instead of note-taking by the student himself, it will answer a useful purpose. The book is divided into three parts:—1. "Surface marking," intended to be read, and its statements verified on the living subject. To this part are also added some tablets on the surgical anatomy of inguinal hernia, Scarpa's triangle, the ischio-rectal region, and the male perineum. 2. "Operative surgery." "Only those operations are referred to which it has been considered most advantageous for the average student to perform, and these are outlined only, and mainly from the cadaveric, as opposed to the practical surgical, standpoint." Hence, we do not find many important operations mentioned. 3. Comprises a series of 100 "typical *vivâ-voce* questions." These will prove of use to the diligent student who takes trouble to work them out, for they are frequently asked at examinations, being of considerable practical importance. In a work which is admittedly compressed as much as possible, it is surely unnecessary to say of the external condyle of the humerus that it is less prominent than the internal and

situated a little lower, when the preceding sentence informs the reader that the internal condyle is more prominent than the external, and situated a little higher. To speak of "Bryant's test" as a comparison of the vertical distance between the anterior superior iliac spine and the great trochanter on the two sides does not convey much idea of Bryant's ilio-femoral triangle to the student. In one or two other parts clearness of expression is sacrificed to brevity. In excision of the hip no mention is made of the anterior incision, the one which is much more frequently used than the external; whilst of amputations at the knee reference is made but to the methods of Carden and Gritti. In the next edition we shall hope to see depicted (or described) the lines of the important nerves, as well as the landmarks in the various tenotomies and osteotomies which are performed, which are not easily remembered by the student, though sometimes asked by the examiner. As an appendix to the aphorisms in applied anatomy and operative surgery, the author has brought out a small volume of seventy to eighty pages on Surgical Descriptive Anatomy, which many will find of considerable use when working for examinations.

Are the Effects of Use and Disuse Inherited? An Examination of the View held by Spencer and Darwin By WM. PLATT BALL. London: Macmillan and Co. Nature Series. Pp. 156.—This work is a critical examination of the arguments for and against the dictum of Herbert Spencer that the effects of use and disuse are inherited in kind, and of that of Darwin, that use in our domestic animals has strengthened and enlarged certain parts and disuse diminished them, and that such modifications are inherited; and the author has brought together a very well selected, as well as very numerous, series of cases which tell against the hypothesis. He endeavours to show that the instances on which Spencer and Darwin rely may be, and probably are, the result of other causes than use or disuse—such, for example, as sexual selection. Mr. Ball discusses many interesting points, such as the inferiority of the senses in Europeans, short-sight in watchmakers and engravers, the large hands of the children of labourers, and the thickened soles of infants. He thinks that use-inheritance is normally so weak that it appears to be quite helpless when opposed to any other factor of evolution, and he points out that natural selection develops seldom-used horns or natural armour just as readily as constantly-used hoofs or teeth. Use-inheritance therefore seems to be unnecessary, as its opposition is ineffective. But one of his strongest arguments is the almost universal non-inheritance of mutilations, which leads the author to speak of the true relation of parents and offspring. The parent he considers to be only the transmitters of types of which they and their offspring are alike more or less moulded resultants. A parent, he says, is a trustee. "He transmits, not himself and his own modifications, but the stock, the type, the representative elements of which he is a product and a custodian in one." Weissman ingeniously likens a parent and child to successive offshoots thrown up by a long underground root or sucker, and it is intelligible that, if the best gemmules are used up in the development of an individual, weaker gemmules are left to continue the race, and deterioration consequently ensues. Mr. Ball's work, though short, is interestingly and thoughtfully written.

Leçons de Clinique Médicale faites à l'Hôpital Saint Eloi de Montpellier. Par le Dr. J. GRASSET. Montpellier: Camille Carlet. Paris: G. Masson. 1891.—The University of Montpellier is of ancient repute. At one time the medical doctrines emanating from its professors exerted no small influence upon prevailing opinion; and although in comparison with other and newer centres of learning Montpellier may not have quite its former prominence, it yet contains within it several men well qualified to sustain its old position. Among them may be reckoned Dr. Grasset, who is well known as an original and thoughtful observer. This volume of clinical lectures abounds in interest for the scientific physician. In the opening lecture on Pneumonic Pyrexiæ the author claims for the Montpellier school the credit of having always contended that pneumonia should be more correctly regarded as a specific fever than as a mere inflammation of the lungs. On the other hand, he endeavours to show that there are varieties of pneumonia depending upon malaria, typhoid fever, and other influences, and he enters fully into the discussion of these types. Several lectures deal with subjects in connexion with disease of the nervous system. There is, for instance, a very thorough study of hystero-traumatism, in which the special features of this class are clearly pointed out. A case of male hysteria, with astasia-ataxia—a peculiar oscillating gait, increased by effort, in which the heel is brought down forcibly to the ground—is very completely analysed. The differences from tabes, disseminated sclerosis, paralysis agitans, myoclonus, Thomsen's disease, and other conditions are all in turn discussed. Astasia-abasia (i.e., inability to maintain erect position or direct movements in walking) was first described by Blocq in 1888, and three types are distinguished—one characterised by muscular weakness, another by incoördination, and a third by rhythmical movements. Hypnotism and many other cases illustrative of hysterical neuroses are also treated in these lectures. The volume includes, further, an account of "la Grippe" of 1889–90, and the memoir on Cardio-vascular Vertigo, by which Dr. Grasset quite recently added to our knowledge of the results of arterial sclerosis. In addition to these lectures and essays, there are several clinical records of cases mostly of nervous disease, the whole forming a volume which may be perused with much profit.

Air Analysis. A Practical Treatise on the Examination of Air, with an Appendix on Illuminating Gas. By J. ALFRED WANKLYN and W. J. COOPER. London: Kegan Paul, Trench, Trübner, and Co., Limited. 1890.—This book will be useful to those who would wish to make a rapid and at the same time fairly accurate analysis of air or other gases. Nothing could be simpler than the methods of gas analysis which are described. The apparatus, too, is of the simplest kind, consisting merely of a eudiometer, pressure tube, and an absorption pipette. There are many forms of simple eudiometric apparatus in use, but perhaps Hempel's, which is advocated here, is the most convenient. Instructions are laid down for the analysis of respired air, air from furnaces (containing carbon monoxide), and illuminating gas. For the estimation of small quantities of carbon monoxide the authors give an original process. They pass a large volume of air through subchloride of copper, after which the copper solution is placed in a suitable apparatus and acid bichromate added. The monoxide is thus expelled, and may then be collected and measured. The historically interesting method adopted by Priestley and Cavendish for determining the proportion of oxygen in the air has been revived, and, in the authors' hands, gives very satisfactory results. It will be remembered that in the classical experiments of Priestley and Cavendish nitric oxide (NO) was used to combine with the oxygen of the air. Nitric peroxide (NO_2) was then formed and absorbed by alkali, or, as the authors prefer, by water.

Atti della R. Accademia dei Fisiocritici di Siena. Ser. IV. Vol. II. Fascicoli 3–4 e 5–6. Siena: 1890.—The first of these parts contains an article by G. F. Novaro, on the Surgery of the Stomach, and a very good memoir by L. Guaita entitled Anatomical and Clinical Investigation on the Exenteration of the Eye. The second part contains the following memoirs: Grimaldi Siro, on Diamylphenylhydrate; Staderini Rutilio, on Anatomical Observations; Viti Arnaldo, on Endocarditis according to Modern Microbic Theories; and lastly, Orecchia Carlo, on So-called Albuminous Periostitis.

THE LANCET.

LONDON: SATURDAY, MAY 2, 1891.

THE consideration of the three proposed schemes of the Committee of Management of the combined Examining Board in England, which was intended to be brought before the Comitia of the Royal College of Physicians on the 30th ult., was postponed until their next meeting. As we showed last week, the schemes differ very much from one another and from the suggestions of the speakers in the debate at the meeting of the General Medical Council, at which a five years' curriculum for future medical students was decided on. As the lengthened curriculum will not interfere with those students who are educated at the different universities, but only with those who are candidates for the diplomas of the various medical corporations empowered to grant licences to practise, it would have been well if the conditions of study for the two classes of candidates had been approximated as closely as was possible. The time spent in a medical education and the expenses will now be as great in the one case as in the other; and as almost everyone is in agreement that the University system is the better, the nearer the other boards can assimilate their course to that system the better educated will the future practitioner be generally, scientifically, and clinically. The first reform should be in the Preliminary Examination. A certificate of the College of Preceptors in the second division, in which the subjects of an inferior schoolboy's education can be passed piecemeal, should not be accepted by the General Medical Council, and many other preliminary examinations which allow a student to be registered are not one whit better than the one mentioned. The General Medical Council should raise the standard of entry into the profession. An ill-educated student cannot intelligently approach the study of the sciences which he afterwards has to learn, or understand the language in which those sciences must be taught; and it is such medical students who bring discredit on the teachers, are rejected again and again by the examiners in science and in medicine, and, if they subsequently contrive to become qualified, appear to an educated public as the blots on a learned profession. Mechanics, as not being generally taught in schools, should be placed with the preliminary sciences. A year should be devoted to these subjects, and until an examination has been passed therein a student should not be permitted to enter on his medical career. If he cannot pass an examination in elementary physics, mechanics, chemistry, and biology, he should be definitely stopped, and this would be at a period of his life when he might readily change his plans, and before his parents or guardians had expended a large sum on his professional education, and thereby be tempted to urge him to continue in a career for which he is evidently unfitted. Elementary human anatomy and pharmacy have no proper place as subjects for a first examination in a well-drawn scheme. Indeed, we would ask how a proper knowledge of "pharmacy" is to be tested except by the Pharmaceutical Society or by a practising druggist. Therapeutics and the actions and doses of remedies, and the manner of their prescription and combination, can only be among the later acquirements; and surely the mere dispensing of prescriptions cannot be meant under the term "pharmacy." If so, it is extremely unfortunate that this should have to be passed at the same time as the elementary sciences. The second examination should consist of anatomy and physiology, and the candidate could fairly be expected to have obtained a sufficient knowledge of these important subjects in a year and a half—that is, after devoting two winter sessions and one summer session to their study. The remainder of the curriculum should be entirely given up to the various subjects included under systematic and clinical medicine, surgery, and midwifery; and as these subjects are those with which he will be concerned on entering practice, and which he must pursue for the whole of his professional career, they should be taken together at the end of his student life. No final examination is fair which does not permit an industrious and intelligent student to pass in these three subjects—in their principles and their practice—at the same time; and one of the most baneful tendencies of the modern examination system is to encourage the candidate to study these all-important branches of medicine separately, and to pass in them one by one. The examination in each is rendered unnecessarily detailed and severe, and the student finds coaching and cramming surer passports into the profession than a good all-round professional education. During this late period attendance at lectures on therapeutics and public health should be insisted on, and there should be a sufficient guarantee that the candidate is familiar with ophthalmic and aural surgery, with febrile diseases, and the distinctive features of psychological medicine. A separate paper on the principles of public health, general pathology, and therapeutics is absolutely essential. The great difficulty is that examinations for medical diplomas are not thorough; if the authorities of hospitals object to their institutions being used for the systematic clinical examination of candidates, there is no sufficient reason why the workhouse infirmaries should not be utilised for this purpose. For the education of the future practitioner acute diseases and injuries are as requisite as chronic cases, and all examinations wherein he is not brought face to face with both classes of cases are unjust to the public and unfair to the candidate. There are many details, to which we may subsequently refer, but it is very important that the general principles on which the education of a well-instructed medical practitioner must rest should be clearly stated at the present time, when the greatest change, since the abolition of the apprenticeship system, is being introduced into our educational curriculum. A scheme of yearly examinations, such as is proposed by Mr. HUTCHINSON, would, considering the varying powers of students, be too rigid to be workable, for hardly any number of students, being at different stages of their examinations, would be available to attend at the same time a given course of lectures.

A REPORT which has been submitted to the Local Government Board by Dr. BLAXALL, upon the sanitary condition and administration of the rural sanitary

district of Staines,[1] deals, as a matter of fact, incidentally with a question of first importance to consumers of water derived from the River Thames; and, having regard to the Parliamentary inquiry into this subject which is now in progress, the report could hardly have been issued at a more opportune moment. It is with reference to this aspect of the question that we especially draw attention to the subject.

The subsoil of the district is gravel, and this special soil, upon which people are so apt to pride themselves, has been so treated from time immemorial that, as in numberless other places having similar geological features, the gravel has become a leading source of danger. In short, it is in many portions of this district permeated with cesspools which have for generations received the liquid filth of the population; some few of these cesspools are shallow and open, but they are mostly covered in and sunk some feet into the soil, thus facilitating storage of excreta, and admitting of the oozing away of their contents. And it is reported that, notwithstanding the obvious risks likely to ensue on such practice, the authority have been content to allow old cesspit-privies to continue in use regardless of the attendant evils of filth-pollution of earth, air, and water. The pollution of the air, with its attendant evil smells, the rooms of houses "stinking with privy effluvia," the resulting "nausea, sore-throats, and the like," we must for the present leave as a matter of local consideration. But as regards pollution of water and fouling of the earth, in so far as this latter bears upon water, there is a much wider interest to be consulted.

Considering first the mere local effects of this cesspit system on earth and water, we find that cesspools, privy-pits, and wells are sunk in the common gravel within a few feet or yards of each other; that as the water rises and falls in the subsoil, so does the Staines liquid filth rise and fall in these receptacles; that when the subsoil water is low, soakage of filth into the gravel bed takes place readily, and when the water rises, this stuff is washed on into wells and elsewhere. The natural result is, as the medical officer of health has reported, that well water becomes so impure as to be unfit for drinking and domestic purposes. One of the remedies locally relied on seems to be to clean out the wells; but the Staines people must be easily satisfied if such a practice contents them, whilst the fouling of the sources of the water—i.e., of the gravel bed—continues as before. Here again, however, we leave such considerations to those who have the responsibility of electing a local authority to look after their sanitary interests.

But, adds Dr. BLAXALL, "the general filthiness of soil and water in the Staines rural district is probably a matter of more than local concern." The water which courses through this gravel bed, and into which are washed the contents of "several thousand cesspools purposely dug into it" for local convenience, passes after such befoulment, directly or indirectly, into the Thames; the main flow of the subsoil water through the gravel bed in its ten miles passage through this district being apparently from west to east, and its discharge being mainly into the lower portion of the boundary river, in the neighbourhood of Sunbury. And this aspect of affairs assumes the importance of a metropolitan question, for at a short distance below this very neighbourhood, on the southern bank of the river, "are situated the pumping stations of certain great London water companies." Dr. BLAXALL does not profess to measure the amount of impurity which actually reaches the river from this gravel bed and its cesspits, neither does he attempt to discuss the question as to what depuration may possibly go on as the water flows through the gravel. But he does take occasion to utter a warning as to the risk of enteric fever, a disease known to disseminate itself essentially through the medium of water-supplies. It is abundantly clear that the water, as drawn from the Staines gravel bed, is capable of conveying and communicating the infection of that disease, and, judging by the death-rate, it seems that the Staines rural district has had some 500 attacks of enteric fever during the past seven years. But at this special moment we would leave it to the experts who will be called before the Parliamentary Committee on the London water-supply to deal with the question of risk to metropolitan water consumers, merely recording the fact that we have often adverted to the danger of drawing water-supplies from streams which are liable to receive a specific contagium which is undiscoverable by any known processes of chemical analyses, whilst we have urged that its importance should not be underrated by reason of proof of its effect being often obscured owing to the chances of escape from its influence which result from the wide diffusion of a particulate material through large bodies of water.

[1] Eyre & Spottiswoode, East Harding-street, London, E.C.; John Menzies & Co., Edinburgh and Glasgow; Hodges, Figgis, & Co., Dublin. Price 2d.

THE foundations of our knowledge of the physiology of gastric digestion were undoubtedly laid by the careful study of the historical case of gastric fistula by Dr. BEAUMONT—the case of ALEXIS ST. MARTIN. Animal experimentation and the test-tube reactions of the laboratory cannot be compared in accuracy to observations made directly upon the living human organism, when these rare opportunities arise which permit of such a study. Then, too, it may happen that a considerable rectification of current physiological doctrine has to be made, and the laboriously gathered results of many observers have to be replaced by those made upon a single case. Much depends, then, upon the skill and thoroughness with which the study of the processes in the human subject are undertaken. It must be admitted that these qualities are conspicuous in the recently published records of a study of the chemical processes of the small intestine by Drs. MACFADYEN, NENCKI, and SIEBER.[1] The subject of their researches was a female patient under the care of Professor KOCHER, in whom an intestinal fistula had resulted from excision of a portion of gangrenous intestine due to strangulated hernia. The false anus was situated in the ileum just above the ileo-cæcal valve, so that the materials escaping thereby were wholly composed of the chyme which had passed through the whole length of the small intestine. For a period of nearly six months the woman lived under these conditions, permitting of a

[1] Archiv f. Exp. Path. u. Pharmacologie, Bd. xxviii., Hft. 3, 4.

long series of observations relative to the time and character of intestinal digestion under varying forms of diet &c. At the end of that time Professor KOCHER re-established the natural channel by means of an operation which proved perfectly successful. It may be remarked at once that during the whole period when there was practically no large intestine the patient gained in weight, and, as the urinary analysis showed, eliminated a fairly normal quantity of urea.

The procedure consisted in adapting a flexible tube to the fistulous outlet, so as to collect all the material that escaped, and to note its characters under varying circumstances. In consistency this "chyme"—if it may be so termed—was more fluid and diarrhœal when the diet was albuminous than when it was mainly of a vegetable nature. It was seen that the flow of chyme from the small into the large intestine is steadily continuous, being least marked during the night, owing to no food being then taken; and by some ingenious experiments (e.g., the addition of hard beans to the food, or of salol, which allowed of the detection of salicylic acid in the matters escaping) it was shown that the passage of foods from mouth to cæcum occupies at the least two hours; but all traces of the substances introduced did not disappear for from nine to fourteen or even twenty-three hours. The rate of flow, of course, bears much relation to the consistency of the intestinal contents. As regards the nature and properties of the evacuated materials, it is noticeable that they were almost free from odour, containing hardly any products of albuminous disintegration, such as indol and sulphuretted hydrogen; they were slightly acid in reaction, tinged yellow by bilirubin, and, according to the predominance of flesh or starchy matter in the food, showed muscle fibre, albuminous granules, vegetable fibres, starch granules, &c., and invariably a large number of various forms of bacteria. The filtrate yielded albumen, mucin, peptone, dextrose, the two forms of lactic acid, acetic acid, and the biliary acids and bilirubin. The authors enter very fully into the characters of the bacteria they find, many forms being special to the small intestine, others existing also in the mouth; but, passing over these, which would entail a full description to be intelligible, we may glance at the main results of their researches, which somewhat modify accepted physiological teachings. One point of interest is the fact that albumen is hardly, if at all, decomposed in the small intestine. Even the action of the trypsin of the pancreatic juice is small, for leucin and tyrosin were not to be found. Probably, in health, albuminous disintegration takes place chiefly in the large intestine, and it is only in disease that it occurs in the stomach or small intestine. Amongst the products of such decomposition are iodol, skatol, phenol, sulphuretted hydrogen, carbonic acid, methylmercaptan, &c., all of which may be regained from the large intestine. The bacteria of the small intestine are concerned in the disintegration of the carbo-hydrates into lactic, acetic, and succinic acids, and also into ethylic alcohol. The authors, in noting this last-named fact, cannot avoid a thrust at the total abstainers. It is generally believed that the chyme is rendered alkaline by the secretion of the small intestine, but they find that, owing probably to the reinforcement of gastric acidity by the organic acids resulting from sugar, the total quantity of acid is more than can be neutralised by the bile, pancreatic, and intestinal juices. If, however, the alkalinity of these fluids be diminished, the intestinal contents are hyper-acid, and mucin is precipitated instead of being intermingled with the chyme. This explained the diarrhœal quality of the evacuations noted to be associated with a large amount of sugar and organic acids in the chyme. On the other hand, an excess of alkalinity favours putrefactive decomposition, the acids apparently holding in check the bacteria concerned in albuminous disintegration. A marked contrast in this respect was exhibited between the small and large intestine. Putrefactive bacteria could hardly be at all isolated from the former, whilst they abounded in the latter; but this is not owing to the influence of bile, which NENCKI showed to have no real antiseptic property. The part played by bacteria in intestinal digestion is limited probably to the fermentation of sugar and carbo-hydrates generally, the excess of acid resulting from this fermentation being neutralised by the alkaline intestinal juice. But, much as bacterial life abounds in the intestinal canals, varying according to the kind and quality of the ingesta, it does not appear that the processes initiated by these organisms are of such value or importance in nutrition as the chemical ferments. Certainly the patient who was the subject of these observations gained in flesh, although for six months she was deprived of all the bacterial processes that go on in the large intestine.

WHAT with the recent debate upon opium, the letters upon ether drinking in Ireland, the investigations of the Select Committee on British and Foreign Spirits, and the serious and elaborate, though probably fallacious, calculations of the number of pipes smoked in excess of previous years, attention is at the present time being very vigorously directed to the increase in the forms, and possibly also in the amount, of self-indulgence. The habit of self-indulgence is deemed to be detrimental to the individual, and therefore to the State; and it is being pursued and exposed to abuse, to censure, and, if practicable, to legislation. The instinct is more widespread than the above enumeration indicates. Most new remedies pass through a perilous stage in which their capabilities of furnishing new forms of self-indulgence are tested; the sway of opium and morphine, although they cannot yet be said to have had their day, has been successively threatened by chloral, by cocaine, by antipyrin, and more recently by the newer hypnotics. Many regard with anxiety the consumption of absinthe in France, of ether in certain parts of Ireland, of opium in China and Burmah, and of alcohol in parts of the globe too universal to specify; if some of the substances mentioned create less alarm it is probable that the cause is to be sought in the relative infrequency and secrecy of their employment.

A correspondent from Bombay wishes us to invite a general discussion from medical experts as to the "proper scope of the medicinal value of alcohol," and he formulates a series of questions for consideration. Many of these questions, if devoid of any particular novelty, are sufficiently suggestive. Thus, for example, no medical man would feel

any difficulty in answering the following: "Is it advisable to recommend the use of alcohol without restriction, or is it necessary to restrict its use like that of other medicinal agents, boldly prohibiting it in certain cases, and giving clear directions as to dose and mode of administration?" But the writer's probable views may be gathered from the wording of another question: "Is the regular daily use of alcohol, in doses generally supposed to be moderate, beneficial or baneful *upon the whole?*" And in his final question he leaves no shadow of doubt about the matter: "Are not the doctors who unnecessarily and unreservedly recommend moderate drinking morally responsible for the ultimate outcome of such recommendation, since they are expected to know something about the frailties of human nature on the one hand and the charms of alcohol on the other?" This indeed lays a heavy charge at our doors, but the subject is scarcely so simple as it would appear. The reference to the frailties of human nature and to the charms of alcohol is not convincing, and the question of self-indulgence in any form must be argued equally with that of alcoholism. Granted that of all forms of preventable disease none are so sad as those which result from self-indulgence, yet it must equally be granted that the downward progress is gradual, and that it must have had a definite starting point. This our correspondent would, in many cases, assign to some careless medical advice, but this is certainly not true for the vast majority. The relief of pain, physical or mental, has often been urged as the determining cause, but this is the extenuating circumstance put forward as an excuse by the habitual drunkard; surely during the time that the seeds of the habit of self-indulgence are sown, during the youth of the individual, he is rarely so sadly situated with regard to pain, physical or mental. The gratification of the sense of taste is still more fallacious during the early stages. The taste may be acquired and cultivated, but probably the starting point for nearly all forms of self-indulgence is a spirit of bravado. The process by which the taste is acquired is frequently painful, as witness the common experience with tobacco, or the effect of the first mouthful of raw spirit; still from a desire for emancipation these discomforts are braved, often in spite of warnings of the dangers of thraldom, but with youthful trust in strength of will to resist. Most forms of self-indulgence involve questions of habit, of lack of self-control fostered by habit, of example of an undesirable nature, and often too they appear largely to be the result of simple drifting from carelessness. Charity looks for reason or explanation in vain; the truth is that the tendency to self-indulgence, regardless of consequences, is one of the weaknesses inseparable from humanity.

Recognising this tendency as one of the frailties of human nature, is the attitude of the medical profession towards forms of self-indulgence at all ambiguous? In spite of all denunciations of the excessive use of alcohol and of the misuse of drugs, grave accusations are still made, which we are invited to discuss. All broad charges require to be reduced to specific issues before they can be met with any chance of success. To accuse the medical profession of favouring habits of intemperance, directly or indirectly, is too serious a matter to be lightly disregarded. Perhaps occasionally, rarely, a hurried and misunderstood piece of advice may be alleged to have led to habits of intemperance, but on inquiry the truth usually appears to be that the individual sufferer possesses an unenviable personal or inherited alcoholic history. On the other hand, there can be very little doubt that the members of the medical profession incur great responsibility for many of the forms of self-indulgence characterised by the perverted employment of drugs, and it is difficult to see how this responsibility is to be avoided under the present conditions of practice and of public interest in medical matters. The general practitioner who dispenses his own medicines sends a sleeping draught, and declares or conceals its active ingredient according to his knowledge of the patient; but when a prescription is given, especially when given by a consultant, with little probability of being able to follow out its subsequent history, the remedy is in the hand of the patient to use or abuse at pleasure.

DR. STEELE, who is well acquainted with the problems of hospital administration and their relation to the public welfare, has recently given his representation of the subject to the Statistical Society. He is a medical man with large experience of the subject in one of the largest hospitals of England, and with a similar experience as to Scotland, where they manage hospitals, as other things, a little more economically than we do here. He may appear to some to be somewhat prejudiced in this matter. The great hospital which he represents has put on a petty charge for medicines to out-patients, a course which many think but little calculated to bring either hospitals or those who administer them into greater respect. At any rate, if the people apply the principle of proportion in estimating the value of medical help, their estimate of the value of the ordinary practitioner must be lowered. They must be tempted to say, "If we can get all the learning and skill of Guy's Hospital's physicians and surgeons for threepence, the value of our medical neighbour, albeit a man of education and one who has been well tortured by the examining bodies, must be something less." This logic is difficult to resist. Nor will such objectors be much conciliated by Dr. STEELE saying that by this charge they are applying the thin edge of the wedge of *self-help*. The end of the wedge here is certainly very thin. It would be far better to let the out-patients of Guy's Hospital understand plainly that they are being served charitably, and that self-help means a very different thing. Dr. STEELE, however, at other parts of his address sufficiently let the cat out of the bag, and practically admitted that it was the exigencies of medical education which necessitated the upholding of the out-patient system. He did not deny its demoralising effects on the patients, and he admitted that some means of repression were necessitated. But he maintained that its educational advantages were such, and that the advantages to the population of consulting experts were such, that it could not be seriously curtailed. Mr. TIMOTHY HOLMES'S opinion, that the out-patient department should consist of serious or difficult cases referred from medical men or provident dispensaries, was rejected by the superintendent of Guy's Hospital on the grounds we have mentioned. He

was equally ingenious in finding reasons for rejecting the system of the Scotch hospitals in giving advice only and not medicines to the out-patients.

Dr. STEELE seems to find a further argument for the petty charges at hospitals and dispensaries in the fact that they yield a total of £47,708, a larger sum than the yield of the Hospital Sunday Fund. He had a word of praise, too, for the Metropolitan Hospital, which is the home of a provident dispensary at Kingsland, and which competes as a metropolitan hospital with all the neighbouring practitioners, though he admitted, what we can scarcely affect to regret, that it is not a financial success. He is too shrewd a man not to have his own doubts whether, apart from a system of efficient inquiry as to fitness, a petty charge is likely to seriously reduce the number of out-patients. He admits that at Guy's Hospital it has had, in one section at least, an opposite effect. It would be strange if it were otherwise. If the leading butchers of the Borough were to offer their prime cuts at 3*d.* a pound, after the manner of Guy's Hospital threepenny charge, instead of the ordinary charges which even the working classes pay, and can pay, for their meat, they would not find the number of their customers diminish. It is the same with medicine as with meat. The ordinary practitioner, on whom the working classes rely in all the great experiences of life, cannot compete with the consultants of Guy's Hospital and their threepenny terms. Dr. STEELE did not attempt to deny that a strict inquiry system had been found to be practicable and effective at Manchester, and had reduced the unfit cases from 42 per cent. to 7 per cent. of the applicants. But he has another theory on which he justifies the petty charges of his own and other hospitals, which give the more respectable section of the patients the comfortable feeling that they are paying for their benefits. He speaks as if "the working classes were to be reckoned among the poor." This is not complimentary to the working classes. A respectable working man does not admit this theory; and, unless we are to demoralise these classes beyond hope of recovery, we must reject it. The classes who constitute the great friendly societies are not poor. They can pay for everything else, save on occasions of misfortune—for meat, education, tobacco, beer. On what theory are they to be excused from paying for the medical attendance required by themselves and their families? We reject the theory that "the working classes are to be considered among the poor." Many of them are so by their own fault. In that case they must be pitied and treated as such. But it is an insult to the working classes to say that this is their general position, and to cater for them as paupers in respect of the supply of their ordinary medical wants. There remains the other great argument advanced—the educational advantages of the out-patient department. This argument cuts two ways, and comes with doubtful grace from the representative of a great school which turns out yearly a considerable proportion of the men qualifying as medical practitioners. It is a poor compliment to educate men at Guy's Hospital and then send them out to find the very hospital that nurtured them competing with them for cheap practice, and justifying its competition by the suggestion that the bulk of the people require the advice of consultants on pauperising terms. We leave this subject for the present not without a strong impression that Dr. STEELE does not seriously differ from us on the great moral and professional questions which are involved in the enormous and morbid development of the out-patient department. It is obvious that medical students must see practice, but it is monstrous that this practice should be found for them in arrangements that degrade the poor and impoverish the profession.

Annotations.

"Ne quid nimis."

CHOLERA AND THE HURDWAR FAIR.

AN opportune note of warning has been issued by the *Indian Medical Gazette* in connexion with this year's Hurdwar fair. A fair takes place at Hurdwar every year, but a peculiar sanctity attaches to the Kumbh Mela held there in the spring of every twelfth year. It was this latter occasion that was in 1879 associated with a disastrous epidemic of cholera, and it is this special fair that this year has again brought with it. The town is hemmed in to the west by the Sewalik Mountains and the Ganges, and the vast number of pilgrims attending it have hitherto been in excess of any arrangements made for the prevention of disease. The camping-out grounds among the spurs of the neighbouring hills and the bathing arrangements have been essentially such as to cause the diffusion of cholera when once it has set in; and this has been especially the case as regards the process of ablutions, which involve the casting of ashes and other offerings into the water, an external washing, and then a draught of the same filthy fluid to complete the effectual cleansing from sin. In 1879 the dispersion of the pilgrims after the occurrence of cholera was followed by a wide diffusion of the disease in epidemic form; the experience of 1867 being largely followed in this respect. There has been much dispute as to the correct interpretation of the facts relating to the coincidence of epidemic cholera and the Hurdwar fairs; but one thing is certain, that conditions which favour the diffusion of that disease have hitherto been intimately associated with these gatherings and their dispersal, and though it may be impossible to deal with some of the religious practices that tend to spread disease, yet much can be done under energetic local supervision to diminish the risks involved. For some months past certain preparations have been in progress to this end, and we trust that they may be successful, both as regards Hurdwar and in their general influence on the central and local administration of sanitary law in our Indian empire.

KOCH'S TUBERCULIN.

THE literature of Koch's tuberculin has already attained considerable proportions, and has received contributions from some of the most distinguished members of the profession. There is a general opinion, however, among those who heard Mr. Watson Cheyne's paper at the meeting of the Medical and Chirurgical Society on Tuesday last, that it is the most weighty and valuable criticism of Koch's method that has yet been made. Mr. Cheyne has proved himself superior to the influence alike of the unreasoning *furore* which immediately followed upon Koch's first paper and the reaction which is now so marked. But starting with a set purpose to investigate the action and the value of the new remedy, and to devote his wards entirely to this study, he has prosecuted his work in a calm, judicial, unprejudiced, and scientific spirit. His paper does not profess to be a final statement on

the matter, but only a preliminary one based on the results obtained in some fifty-five cases. So far, however, Mr. Cheyne has obtained some important results. He has, he thinks, made a considerable improvement in the method of using the drug, by which he is able to obtain a maximum of local effect with a minimum of constitutional disturbance—a matter of great importance. By his pathological investigations, which have been carried out alongside of his clinical studies, he has shown what changes the remedy produces in the tubercular growth, and these he not only described but demonstrated by means of micro-photography and a lantern. Of the more important clinical results obtained we cannot speak in full now, but we may say that they tend to narrow the limits within which tuberculin is useful in surgical tuberculosis. The whole evening was occupied by the reading of Mr. Cheyne's paper, and the discussion upon it is to be taken at a special meeting of the Society called for Thursday, May 7th.

PROPERTY IN PRESCRIPTIONS.

AN esteemed correspondent, signing himself "Senex," calls our attention to a matter which he thinks of importance to the public as well as to the profession. His letter is too long for insertion, but the gist of it is this. Some thirty years ago he received from a physician a prescription of a powder for the relief of "rheumatic pains." He valued the medicine so highly that he has never since ceased to have recourse to it whenever he deemed it necessary; and on several occasions, notably when leaving for a long sojourn in India, he obtained copies of the prescription from the chemist who dispensed it. On his return home a few years ago he again had the powder dispensed by the same chemist several times; but on asking for a copy of the prescription recently, as he was leaving London, the chemist has declined to furnish him with one without the prescriber's sanction, so long a period having elapsed since it was prescribed. Our correspondent believes the physician to be dead, and wishes to know whether the chemist has any right to refuse him a copy of what he considers to be his own property. The question is apparently a simple one, turning solely upon the proprietary right of the chemist to the copy of a prescription which he made, not solely as a matter of convenience or for the benefit of his customer, but of his own will and with the intent of its becoming part of his stock-in-trade. We are of opinion that if the chemist takes the trouble to register the prescriptions sent to him, it is quite within his right to decline to furnish copies of his entry, even at the request of the person for whom the medicine is prescribed. No chemist is bound to keep such a register (except in the case of prescriptions containing poisons), and he would always be at liberty to destroy it at any time. No doubt it is to his advantage to file prescriptions, and no doubt also he would seldom refuse copies to the patient or the prescriber as a matter of courtesy. The physician certainly parted with his right in the prescription to the patient, who, by the way, seems to have had several opportunities of taking care that a document so valuable to himself should be preserved. Thus, though we may sympathise with "Senex," we cannot blame the chemist for adhering to the rule of his establishment, which has a good deal to be said for it, from the point of view of the patient as well as from that of the medical man. There are occasions, indeed, when a chemist would be fully justified in declining, not only to furnish a copy of a prescription, but even to dispense it a second time without a reference to the prescriber. The practice in some countries for the original prescription to be kept by the chemist clearly shows that there at least it is recognised that he who dispenses the medicine has a property in it, rather than he for whom it is dispensed.

AN ENORMOUS OVARIAN CYST.

THERE has recently been a patient in the obstetric ward of St. Thomas's Hospital, under the care of Dr. Cullingworth, suffering from an enormous ovarian cyst. She was a widow aged forty-five, who had had no children, and who had been the stewardess on a well-known line of Channel steamers for many years. The swelling of the abdomen was first noticed nine years ago; for three years and a half it had been so large that she had been unable to go beyond her own garden; for two years she had not left her room, and for six months she had not been out of bed. She had persistently refused operation until recently. After admission on April 9th the abdomen was found to be uniformly and enormously distended by a fluctuating swelling, consisting of one large cyst, distending the lower part of the thorax, and hanging down, as she sat in bed, as far as the knees, completely concealing the thighs. The girth 1½ in. above the umbilicus was 67 in.; the measurement from the ensiform cartilage to the symphysis pubis was 38 in. The body was greatly emaciated; she presented a most remarkable appearance, but was very cheerful. There was some albuminuria. On April 13th, preparatory to operation and in order to diminish the shock, the abdomen was punctured by a fine trocar, attached to a long indiarubber tube, with the lower end placed under a measured quantity of solution of carbolic acid, and the fluid from the cyst allowed to flow away for seven hours. Seventy-four pints of thick grumous chocolate-coloured fluid escaped, containing much altered blood. The day after this an attempt was made, under ether, to remove the tumour. The whole of the anterior surface of the cyst was adherent to the abdominal wall. There were comparatively few adhesions posteriorly, but more in the pelvis. At the end of half an hour the patient became seriously collapsed, and the cyst was quickly extracted. It was a large thick-walled single cyst of the left ovary. The patient died before the closure of the abdominal wound had been completed, in spite of persistent efforts at resuscitation. The total weight of the tumour and its contents—including that of the fluid removed on the previous day—was 154½ lb., or 11 st. ½ lb. The weight of the patient was not ascertained, but must have been much less than this. This is probably the largest abdominal tumour of which there is any record; the largest mentioned in the series of 1000 by Sir Spencer Wells did not weigh more than 125 lb.

MORAL OR MORBID?

HAPPILY, in one sense, it is not often that a play is presented for public approval dealing almost wholly with an erratic emotional state of mind akin to insanity; but this enjoyment, if enjoyment it be, has been provided with much earnestness in the performance of Ibsen's "Hedda Gabler." Of late much has been said of Ibsen as a moral teacher, but the moral of this play is rather hard to find. It is a very forcible character sketch in which the interest centres round the heroine, all the others sinking into relative insignificance, although they are each and all sufficiently true to life. The play deals with the career of a young married woman, who from childhood has been in some respects strange and frightening. At school she was always torn by an insane desire to burn the hair of a younger girl. Later she shows an eagerness to know the details and intricacies of the forms of vice finding favour with a young literary man, and then, as it is expressed, when he wishes to change the relationship of comrades, she threatens him with a pistol. Subsequent events are left a little vague, but she has made a sudden, unaccountable marriage with a man for whom she has no

affection, and when the play commences she has just returned from an inordinately long honeymoon, in which she has been mortally bored by being everlastingly in the company of one and the same person. At first the purely selfish side of her character is displayed. All her plans appear to be arranged solely for her own gratification, and the causes of her *ennui* and her changeful moods are difficult to fathom. She is wantonly rude to her husband's relatives, and excuses herself because these things come into her head and she cannot help doing them. She describes herself as a coward at heart, with a hatred for witnessing disease and death, and most strongly averse to any form of open scandal, and little by little the secret of her past creeps out. The former lover, whose alcoholic habits had been reformed by a new *liaison*, is, under Hedda's encouragement, induced to lapse into a drunken bout, in the course of which a valuable manuscript is lost. In despair he comes to Hedda and announces his intention of committing suicide, and is then merely told to "do this gracefully," and the pistol, that had been presented at him before, is given him "as a souvenir." It is needless to follow the story further. The cause of the trouble is abundantly evident before the curtain falls. And yet, after all, the pre-occupation, the childish whims, and the recklessness are found to be indications of a morbid state rather than of any mere emotional condition. The heroine's actions are not characterised by reason, but by aimless transitions from one subject to another remotely linked to it, as in a nightmare. There is a disregard of consequences, an absolute æsthetic delight in making all go wrong, and in not realising the final catastrophe which is inevitable when the results of her actions crowd around her. All this is essentially morbid, essentially a study of conditions which are only too familiar to medical observation. To see in action the previous history, the predisposing causes, and the symptoms of a simple case may be novel to the public, but not to the profession. Whether any good can result from it all is another matter. Although dramatic criticism is beyond our usual province, a tribute of admiration must be accorded to the marvellous acting of Miss Elizabeth Robbins in the title *rôle*. This fact remains beyond dispute, even to those who venture to doubt the healthy influence of Ibsenism as here represented.

RAILWAY ACCIDENTS IN 1890.

THE Board of Trade Returns of Railway Accidents for the past year give as usual an account, which is upon the whole very satisfactory, of the results of railway working during that period. The number of accidents recorded is not excessive when regard is had to the immense volume of the traffic in connexion with which they arise, and what is no less important than the control of their number is the minimising of their severity when they do occur. The great improvement which has been effected within recent years in the brake apparatus furnished to trains has had a marked effect in this direction. By increasing the control which the officials in charge of a train have over its movements in a moment of emergency they have diminished in more than equal proportion the severity of the consequences of such mishaps as do and must occur. It appears from the report that even in this direction something yet remains to be done, for ineffective brakes still constitute an appreciable source of danger to the traffic. Much more serious, however, than the danger from failing brakes or other defective parts of the machinery and plant are the perils incurred by placing excessive confidence in the presence of mind and diligence of officials who are often overworked. The forgetfulness of signalmen figures over and over again in this report as the primary cause of a disaster, and in one noticeable instance a collision is referred to the failure of a guard to give to his engine-driver the assistance in putting on the brake which the latter was entitled to expect. This failure is accounted for on the hypothesis that the guard was at the time asleep in his van, a circumstance which is rendered the more probable by the undoubted fact that he had been doing upwards of twelve hours' duty. Indeed, although we find less reference in this than in some previous reports to the mischief of overworking servants who are charged with these highly responsible duties, it is abundantly plain from these pages that the railway companies are still sadly wanting in the due appreciation of their public and private duties in respect of the apportioning of work among their servants, and the maintenance of a sufficient staff to deal without undue strain with the work that has to be done.

RESEARCH AT THE LABORATORY OF THE ROYAL COLLEGES.

FROM a report of the Laboratories Committee submitted to the Colleges of Physicians and Surgeons we learn that the following are at present working, or have received permission to work, in the laboratories:—Dr. Pavy, F.R.S., and Mr. Rowntree, Researches on Glycogen and Sugar; Mr. D'Arcy Power, Cancer; Mr. C. A. Ballance and Mr. S. G. Shattock, Malignant Tumours; Dr. Howard H. Tooth, Paths of Sensation in the Brain; Dr. A. W. Macfarlane, Anæsthetics and Hypnotics; Mr. Watson Cheyne and Mr. Cheatle, Tuberculous Disease; Mr. Douglas Stanley, Cancer; Dr. M. A. Ruffer, Immunity against Infectious Diseases; Dr. James Galloway, Malignant Diseases affecting the Peritoneum; Dr. A. E. Wright, Coagulation of the Blood; Mr. R. Cozens Bailey, Surgical Treatment of Wounds of the Intestine; Dr. Vincent Harris and Dr. W. Gow, the Structure and Function of the Pancreas; Dr. W. P. Herringham and Mr. E. Groves, the Execration of Uric Acid and Urea; Dr. Sidney Martin, the Chemical Products of Infective Micro-organisms.

THE VALUATION OF MEAT PEPTONES.

AN important discrepancy in the method adopted by chemists for the analysis of peptones is pointed out by M. A. Denaeyer in a pamphlet of recent issue. In the well-known König process no regard is paid to the determination of gelatine, which it appears is a common constituent of commercial peptone of meat; and as sulphate of ammonia is used for the precipitation of albumose (gelatine being precipitated by the same reagent), the proportion of albumose-peptone is exaggerated. If, as the author states, gelatine enters largely into the composition of many of the preparations in commerce, it becomes a matter of fundamental importance to be able to determine the amount of this body, inasmuch as it is said to present the nutritive value of neither the albumens nor their peptones. The process now published by M. Denaeyer admits of the estimation of all three bodies—viz., gelatine, albumose, and peptone. The following is a *résumé* of the method which he adopts. Two grammes of dry peptone in 10 cubic centimetres of water are treated with 90 cc. of 90 per cent. alcohol. The alcohol precipitates the albumose, peptone, and normal jellifiable gelatine, while it takes up the salts and extractive bases and allotropic injellifiable gelatine. The coagulum obtained by alcohol is then dissolved in hot water, any residue of albumens which have been rendered permanently insoluble by the alcohol being filtered off and weighed. To the dissolved portion, which is carefully neutralised, an excess of saturated solution of bichloride of mercury is added. This reagent throws down albumose and peptone, the gelatine remaining in solution. After filtration the clear solution may be freed from mercury by means of sulphuretted hydrogen. It is then filtered, and the gelatine, after concentration of the fluid, pre-

cipitated by a saturated solution of ammonium sulphate. On raising the mixture to boiling, the gelatine firmly adheres to the sides of the vessel. It may be washed quickly with cold water and weighed; the weight of the vessel and the entangled sulphate of ammonium being deducted, the amount of normal jellifiable gelatine is given. The quantity of adherent ammonium sulphate is determined by dissolving the coagulum in warm water and triturating with a standard solution of barium chloride. The weight of gelatine so obtained is deducted from the weight of the precipitate given by adding saturated ammonium sulphate directly (as in the König process) to a fresh solution of the alcohol coagulum. As ammonium sulphate precipitates both gelatine and albumose, this last difference gives the albumose. For the estimation of peptone proper two grammes of peptone, freed in the same way from insoluble albumens and extractives, are treated with a solution of acid phosphotungstate of soda, which precipitates the normal gelatine, the albumose, and the peptone. The precipitate is collected on a tared ashless filter, washed well with water containing hydrochloric acid, dried, and weighed. It is then ignited in a muffle until complete incineration is effected. The weight of the residue and that of the filter are deducted from that of the dry precipitate. This gives the gelatine, albumose, and peptone. On deducting the amount of gelatine and albumose the weight of peptone is gained. The alcohol employed for the precipitation of the albumens and peptones is divided into two portions — one in which allotropic injellifiable gelatine is estimated by evaporating to dryness, taking up with water and treating with ammonium sulphate in the manner already indicated; the other portion is evaporated, and the residue dried to constant weight. From this is deducted the weight of gelatine (injellifiable), and the amount of creatine and salts is arrived at by difference. The process is evidently based on accurate and painstaking observations, and it certainly seems to promise in the hands of careful operators a means for the satisfactory separation and estimation of albumose, peptone, and gelatine. This last body, the author states, whether normal or injellifiable, is not identical, chemically or physiologically, with peptone or albumose, in that it has a greater percentage of nitrogen, and, unlike them, is not organically assimilable. It is therefore desirable to know the proportion of gelatine contained in preparations of this kind, seeing that they are largely advocated and employed as nutrients in the treatment of disease associated with enfeebled powers of assimilation and digestion. M. Denaeyer appears to have been one of the first to recognise the presence of gelatine in meat peptones, and his process will in all probability prove a contribution of no little importance to the analytical domain of chemical science.

OPERATION FOR TUMOUR PRESSING ON THE CAUDA EQUINA.

IN the *Neurologisches Centralblatt* of April 1st Dr. Leopold Laquer of Frankfurt gives an account of a case in which, from the symptoms and history, he was able to diagnose some growth in the sacral canal exerting pressure on the roots of the cauda equina. The patient was a young man of nineteen, with an excellent family history, and in whom any specific affection could be excluded. He began in September, 1888, to suffer from severe pain in the middle of the sacrum. This spot was also very sensitive to pressure. The pain, although for the most part confined to the spot mentioned, not unfrequently spread to the knees on each side, and no impression could be made upon it with all the antirheumatic and other drugs which were tried. It was much worse at night than at other times. Counter-irritation and galvanism effected temporary improvement. The pain was always worst when sitting or lying down, and he was able to walk for an hour or two without much trouble. This was when he first came under observation. At this time all the movements of the different joints could be carried out, the knee-jerks were present, and there was no trouble with the sphincters. There was no muscular atrophy, no disturbance of sensibility, and all the muscles reacted well to both currents. After the temporary improvement following counter-irritation and galvanism, his condition became progressively worse; the pains were more severe, there was some wasting of the quadriceps, the knee-jerk could only be obtained with difficulty on one side and was absent on the other, there was pain upon defecation and micturition, and there was difficulty in emptying the bladder. Power of progression also was more difficult, and the patient was much bent when he walked. There was no impairment of sensibility to be discovered. The electrical reactions were unchanged. A diagnosis was made of a new growth in the sacral canal, compressing the cauda equina. The operation of opening the canal was effected by Dr. Louis Rehn, and a cavernous lymphangioma was formed which was extra-dural, but had pressed the dura and the cauda equina from before backwards. The patient made an excellent recovery, losing his pain and regaining all his former power.

"QUARANTINING A HOSPITAL."

UNDER the above heading the *New York Herald* announces a curious piece of sanitary administration. If our contemporary has been correctly informed, the English Hospital at Elizabeth, New Jersey, was on April 10th placed under strict quarantine for two weeks at least, or until the typhus fever there had been entirely stamped out; and the nature of this quarantine may be judged of by the announcement that none of the physicians, nurses, employés, or patients will be permitted to leave the institution until the quarantine has been raised. This is the first time that we ever heard of such action in the case of typhus fever in a hospital; and experience in this country goes to show that such restrictions are quite uncalled for. Typhus fever is highly infectious at close quarters, and the attendants on the sick run considerable risk of contracting the disease. But whilst this was the case at the London Fever Hospital during the last typhus fever prevalence, it was also proved, as the result of an investigation published in the Local Government Board Report of 1882 on Infectious Hospitals, that whereas no less than 18,073 cases of typhus fever had been treated in that hospital, which is surrounded by a thickly peopled part of the metropolis, some living within from forty-nine to eighty-four feet of the buildings, not a single case of typhus fever could, as the result of two house-to-house inquiries, be found to have occurred amongst the population around the hospital. And this fact becomes the more striking when it is remembered that between 1862 and 1869 the number of typhus fever patients received into that hospital in several years varied between about 1800 to 2500 cases. Since 1871 we have not had much typhus fever in London; of late years it has been a rarity, but we have always been able at once to check it by ordinary hospital isolation, and without any imprisonment of the hospital staff.

THE INTERNATIONAL CONGRESS OF HYGIENE.

AS we foretold in our criticisms of the organisation of the forthcoming International Congress of Hygiene, the confusing connexion established between demography and industrial hygiene has already occasioned strong protests. An organisation which has very greatly contributed to the popularity and the success of these International Congresses of Hygiene is the French Society of Public Medicine and Professional Hygiene. This organisation publishes the

Revue d'Hygiène as its official organ, and the last issue of this paper gives the programme of the Congress. It also explains that the French Government, being desirous to ensure a large participation of the French nation at this important gathering, has instituted, by a decree issued by the Minister of the Interior, a special committee, thus composed:—Honorary President, M. Pasteur; President, Dr. Brouardel; Vice-Presidents, Drs. Bergeron, Chauveau, H. Monod, and Proust; Secretaries, Drs. Napias, A. J. Martin, De Valbreuze; Assistant Secretary, Dr. L. Vintras. Then there is a numerous committee comprising some of the best known names among the sanitary reformers of France. This committee is about to hold meetings regularly to organise the participation of France in the labours of the Congress. The first act has been the publication in the *Revue d'Hygiène* of the programme of the Congress, preceded by the following remarks:—"The Congress will have two divisions: the first, consecrated to hygiene, will have nine sections; the second is solely devoted to demography, which, according to the programme of the Congress, shall comprise industrial hygiene. This decision appears most singular. It will throw into confusion those persons who wish to discuss subjects concerning professional or industrial hygiene; and doubtless it will be necessary to create a new and special section for this purpose." We trust that the organising committee, in response to the protest received from the Continent, will create another and separate section or subdivision, devoted exclusively to industrial hygiene, and independent of demography.

TRIGEMINAL NEURALGIA AND IODIDE OF POTASSIUM.

IN the last number of the *Neurologisches Centralblatt* reference is made to some interesting facts related by Dr. S. Ehrmann as to the occurrence of severe facial neuralgia after the administration of even small doses of iodide of potassium. In the first case mentioned the patient, a strong working man of thirty-five, suffered most intense pain in the forehead and in the teeth, with sensitiveness over the whole distribution of the fifth nerve, after taking fifteen grains of the drug. A second patient after taking thirty grains had much pain in the region of the upper jaw, with pain and tenderness in separate branches of the nerve, and also œdema of the eyelids on the left side. A third and a fourth patient also suffered from similar symptoms after similar doses. There were associated in all the cases much lacrymation and injection of the conjunctiva, but the symptoms rapidly vanished, and did not reappear on a further administration of the drug. The cases are not only interesting, but important, for it is desirable to know as much as possible regarding any peculiar effects likely to be produced by a drug which is so frequently administered as is iodide of potassium.

THE POLICLINICO AT ROME.

AN Italian correspondent writes under date of the 16th ult.:—"Among Italy's public institutions which, either contemplated or already begun, have had to be postponed or suspended, in compliance with its present policy of retrenchment, the great hospital of the Policlinico at Rome is, I am sorry to say, one of the most conspicuous sufferers. Dr. Baccelli, to whose initiative the undertaking is due, and to whose energy it mainly owes the advanced stage towards completion it has already attained, has appealed to the newspaper press to aid him in averting the loss and disgrace to Italy its temporary abandonment would entail. The representatives in Rome of the leading journals of the Peninsula were invited by him to a friendly collation in the hall of the Ufficio Tecnico of the institution, and heard from him a statement of the objects with which the Policlinico had been started, and of the means required to carry it speedily and effectively to completion. He produced evidence to show that the self-abnegation of his colleagues of the architectural and engineering departments had been rewarded by the estimates not having been exceeded by a single centime, and he further demonstrated that the obstacles thrown in the way of the works already in progress were of purely bureaucratic origin—obstacles proceeding from so short-sighted and arbitrary a financial policy that unless removed or neutralised by the pressure of public opinion, he and his fellow-commissioners on the undertaking would have to resign. This announcement, which no one acquainted with Dr. Baccelli's resolute character could fail to appreciate, means, practically, the suspension *sine die* of the Policlinico. And yet, as he pointed out, Rome, both city and province—nay, Italy itself, were never less prepared to meet such a calamity. The local hospitals are quite inadequate to the public demands on them, and recent examples have not, he said, been wanting of patients far gone in disease, little short, indeed, of moribund, being turned away from the threshold of the cliniques. Not only so, but he reminded his audience that Italy's *amour propre* was in danger of being compromised. In 1893 Rome will be the seat of the great International Congress of Medicine and Surgery, and will harbour within her walls the men of light and leading in the profession from every quarter of the globe. Is Rome, is Italy, he asked, prepared to exhibit to these men and to the world the spectacle of a magnificent Policlinico arrested within sight of completion by a policy of ignoble and short-sighted economy? From official obstruction and apathy, he appealed, therefore, to the Italian public through their leading journals to make the institution independent of bureaucratic caprice, and to intervene with substantial aid for the furtherance and completion of a magnificent undertaking worthily begun. Dr. Baccelli's eloquent words were seconded by a visit to the wards, laboratories, and lecture-rooms already in working order, in the course of which intelligent admiration was evoked by the amplitude and fitness and general efficiency of the plan and the details of the building. It is to be hoped that on this, as on other occasions, the public of Italy will show itself a more enlightened interpreter of its wants, and a more effective vindicator of its dignity, than its official representatives."

THE POLICE AND STREET ACCIDENTS.

As far as mere theory is concerned, the necessity of obtaining prompt and efficient medical assistance in cases of accidental injury will be universally acknowledged. It is when we come to deal with actual emergencies that errors of judgment occur and practical minutiæ may include the whole future of results. Let us briefly quote in illustration the history of a case which was recently the subject of an inquest at St. Thomas's Hospital, and which proves the importance of arriving at a clear understanding on this very critical matter. The deceased, a man of middle age, fell from a tramcar and was laid unconscious on the footpath. Shortly after he was seen by a medical man, who, finding no evidence of serious injury, gave a somewhat hopeful prognosis, but advised his removal to the police station for further examination by the divisional surgeon. Thither he was taken accordingly. Since he smelt of drink, however, and since the view taken of his case was not very grave, he received there no further medical attention. After some hours he was taken home, and thence on fresh advice was transferred to the hospital, where he died almost on admission. In this unfortunate incident the old confusion

between the coma of drink and that of death is again evident, and the police have not escaped a sharp censure at the hands of the coroner and his jury for their slowness to provide for the more urgent condition. In our opinion, the justice of this reprimand is not altogether above question. The deceased while at the station was undoubtedly dying, and should have been under medical supervision. But could the police be expected to know this? We think not. Ground for suspicion there may have been, but even this was not so evident as to alarm the practitioner first called to the case. Unfortunately, but not unnaturally, the police officers did not recognise the immediate need of obtaining, as advised, a further medical opinion. There is not a doubt that in any case the injured man, who had fracture of the base of the skull, would have died, though the lessons which his death teaches ought not therefore to be overlooked. Any blame attributable in this case should rest upon the course pursued in removal. Errors of judgment like that above recorded would probably best be avoided by establishing a rule that in future any person injured in the streets shall be removed with the least possible delay either to the custody of his friends or to the nearest hospital. The responsibility of the police would thus be clearly defined.

THE INFLUENZA EPIDEMIC.

THE official returns from Sheffield during the past week show very strikingly the extent and severity of the outbreak of influenza in that town—the mortality from bronchitis and pneumonia, as well as that from the influenza itself, having attained serious proportions. That the outbreak, which is believed to have affected one-third of the population, is of a far more virulent character than that of last year is shown by the fact that for the week ending April 25th the death-rate reached the extraordinary figure of 57 per 1000, whilst the highest weekly death-rate during the 1890 epidemic was 38 per 1000. Whilst, in accordance with its usual character, the disease is abating in some of the towns first attacked, it has appeared with considerable severity in others—Liverpool, Bolton, Pontefract, York, Huddersfield, Stockton, Gainsborough, Spalding, and Nottingham being especially noted. Its extension over the country in general has not been characterised by the rapidity of the 1890 epidemic, when it appeared almost simultaneously in widely separated districts; but there can be no question as to its having occurred during the past week both in North and South Wales, as well as in the Eastern counties, whilst several cases have been under treatment in the metropolis. So far, however, London has fortunately not had a repetition of its last year's experience, but it would be singular if it should escape as severe a visitation as it then suffered.

THYROID GRAFTING IN MYXŒDEMA.

IT may be remembered that some fifteen months ago, encouraged by the experimental results of von Eiselberg, Professor Horsley suggested that in transplantation of the thyroid of the sheep into the peritoneal cavity, a method might be found to arrest the progress of myxœdema. In Paris the suggestion was put into practice by M. Lannelongue[1] who grafted a portion of sheep's thyroid in the subcutaneous tissue of the infra-mammary region of a myxœdematous cretin, and in the same city later in the year[2] M. Walther obtained a rather striking result from the like procedure in a well-marked case of myxœdema. We now learn that, on the 2nd ult., at the Temperance Hospital, Hampstead-road, Dr. W. J. Collins transplanted the whole thyroid gland from a sheep into the submammary region of a woman suffering from myxœdema. The organ, which weighed from six to eight ounces, must have become quite "vitalised," as there was no suppuration, and the wound healed by first intention. It is of course too early to speak of any marked result; but, in the four weeks that have elapsed since the operation, the patient's general condition and appearance are stated to have improved. We are not aware of any other case in this country in which this procedure has been put in practice, except one by Mr. E. H. Fenwick, where the disease was too far advanced to admit of any satisfactory inference being drawn as to the efficacy of the method.

[1] See THE LANCET, vol. i. 1890, p. 464.
[2] Ibid., vol. ii. p. 1192.

PROFESSOR TYNDALL.

PROFESSOR TYNDALL has been again obliged to return to his bed in consequence of venous thrombosis in the right lower extremity. He has been suffering considerably from broken rest, but his strength is fairly maintained.

OPERATION FOR EPILEPSY.

A CASE is published in a recent number of the *New York Medical Journal* in which an operation was undertaken with the view of relieving epileptic attacks to which the patient had been subject for some years. The attacks always began with movement of the right thumb, and movements of the wrist, elbow, and shoulder followed in succession. At times the leg also was affected and consciousness lost, but as a rule the attacks were limited to the hand and arm, and consciousness was retained. There was no optic neuritis, and no history of injury to the head to which the onset of the attacks could be attributed. The usual remedies were tried, with occasional temporary benefit, but at last operation was resorted to at the desire of the patient and his friends. The details of the operation it is unnecessary to enter into. The arm centre and part of the face centre are said to have been removed, the area being discovered by means of faradaic stimulation. The buttons of bone were replaced. After the operation the patient rallied well. He had complete paralysis of the right arm, and after two days there was no recurrence of the seizures. In about a week, however, the temperature rose, there was a discharge of cerebro-spinal fluid, and one of the pieces of bone was found loose. At the necropsy extensive inflammatory change was found, the left hemisphere was bathed in pus—a condition in all probability of septic meningitis. It is unfortunate that the favourable promise of the first few days after the operation should have been followed by such a catastrophe, which the author ascribes to the occurrence of a hernia cerebri leading to meningitis.

REFORM IN RAILWAY CARRIAGE ARRANGEMENTS.

THE last few years have witnessed the introduction of important reforms both as regards the comfort and the wholesomeness of railway carriage accommodation. On most of the main lines provision has been made on a scale which is even liberal for rest, sleep, refreshment, and cleanliness, and it might be supposed that, for a time at least, we have reached the limit of improvement. That this is not the case we are reminded by an interesting paper lately read before the Dresden Society of Engineers by Herr Pfuetzner. His remarks on ventilation are especially noteworthy. As regards this matter, he shows that we are landed in a practical difficulty which is only too familiar to all who interest themselves in this subject—namely, that of obtaining sufficient fresh air without draught. The amount of air space provided on the Prussian State railways, if we

allow for the average percentage of passengers, is—for the first class, 278, for the second, 184, and for the third, 120 cubic feet respectively. In order to maintain even a fairly wholesome atmosphere containing no more than 1 per 1000 of carbonic acid, an average amount of 1055 cubic feet of fresh air per hour must be allowed for each passenger. In other words, the air of a carriage must be changed in the first class nearly 3½, in the second about 5⅞, and in the third nearly 9 times per hour, in order to prevent its becoming close. Thus, with the exception of the first class, which on German railways is but little used, the required atmospheric displacement is essentially draughty. This characteristic, indeed, we may take to be practically inseparable from railway travelling. The rapidity of transit in itself, though it cannot, in spite of closed windows and ventilation panels, avail for due ventilation, must necessarily cause draughts at every outlet. Another suggestion contained in this paper—i.e., the expediency of warming by hot-water pipes—if generally adopted, is calculated to minimise, if not entirely to obviate, this difficulty. Though we can hardly expect to see any great and immediate advance as the result of Herr Pfuetzner's observations, we gladly welcome them as indicating a future brighter than the present as regards health and comfort in railway travelling.

LONDON POST-GRADUATE COURSE.

THIS course has steadily developed, until there are now nine institutions associated with its work. In addition to the five original hospitals—viz, the Hospital for Consumption, Brompton; the National Hospital, Queen-square; the Hospital for Sick Children, Great Ormond-street; the Royal London Ophthalmic Hospital, Moorfields; and the Hospital for Diseases of the Skin, Blackfriars—there are now the Royal Bethlem Hospital, the London Throat Hospital, the Bacteriological Department, King's College, and the Pathological Department, Great Northern Hospital, also associated in the work. The hospitals have given special facilities to members of the course who can only remain in town for a limited period, enabling them to attend the hospital practice at proportional fees. The entry was well maintained during the winter term, notwithstanding the increase of work which the severe weather entailed on many practitioners who desired to benefit by the instruction provided for them. There were fifty-three entries, and the new regulations enabled seven naval surgeons to attend the entire course. The practitioners attending were chiefly British and colonial, including a considerable number of army surgeons and American practitioners.

FRANCE AND CHOLERA RESTRICTIONS.

DR. PROUST, in reporting to the Comité Consultatif d'Hygiène Publique de France on the state of public health abroad, refers to the passage in quarantine through the Suez Canal of British vessels on which cholera has occurred before arrival in the Red Sea, a practice to which it is evident, both from the wording of his report and from the general attitude which he and other leading French epidemiologists have assumed in this matter, he strongly objects. So long as British vessels pass directly from the East to British ports, surely it cannot concern France whether the crews and passengers are sick or healthy. We are prepared to take any risk that is involved; and we have half a century's experience to show that even if cholera prevails in England, it does not spread thence to France. If France and other Mediterranean Powers choose to act otherwise as regards vessels bound for their ports, the matter is an entirely different one. That is their business, and so long as they know that their Mediterranean ports are in a sanitary state such as will not justify any risk being incurred, we have nothing to say to the contrary. But we have in this country done a vast amount of sanitary work in our ports as elsewhere; and it is somewhat intolerable that we should be put on the same footing as some of the southern ports of Europe, which have so recently been condemned by French sanitarians, amongst others, as having done nothing to amend their faulty conditions since cholera last prevailed in them. Amongst those who voted recently against allowing British vessels bound for British ports to pass through the Suez Canal without touching land and under the supervision of the quarantine officers was the French delegate—a course of action we can hardly regard as justifiable. It is certainly in marked contrast to our attitude in this country when cholera last prevailed as an epidemic in Paris, and when the French service to England was maintained without restriction, and also without any resulting mischief.

PARAFFIN OIL AND ALCOHOLISM.

THE number of remedies—not to say nostrums—which have from time to time been vaunted as specifics for alcoholism is legion, some of the latest being red cinchona, strychnine, ichthyol, phosphorus, hydrobromate of hyoscine, and hydrastis. The most recently suggested remedy is petroleum, or paraffin oil, to which the attention of the St. Petersburg medical authorities was called by an accident. It appears that a labouring man, who had been drinking heavily for four days and nights, entered in a complete state of intoxication a grocer's shop, without being conscious of where he was or what he was doing. Unnoticed by the shopkeeper, he staggered up to an open cask of petroleum, and began drinking from it. With difficulty he was dragged away from the cask, and, seeing the large quantity of petroleum he had imbibed, it was expected he would fall down senseless, and be seriously ill. Instead of this, however, it is related that the petroleum had cured him of all the ill effects of over-drinking, the nausea, unsteadiness of gait, and headache disappearing as if by magic. In fact, it is stated he left the shop sober, and quite another man as compared with what he was before he took the draught of petroleum!

ACUTE ASCENDING PARALYSIS.

THE term "acute ascending paralysis," or "Landry's paralysis," is one which has been applied to a collection of symptoms, the most prominent of which are sudden loss of motor power, which then increases gradually, unassociated with marked sensory disturbance, or with disturbance of the functions of the bladder or rectum, and without any muscular atrophy. Some authors, however, have been of opinion that sensory impairment may occur in this disease, and others have held that the organic reflexes may be disturbed, and that trophic changes may occur. While in the majority of cases no morbid appearance has been found corresponding to the symptoms, in a few, changes of the nature of myelitis have been described, and in at least one case the medulla was found diseased. Dr. Eichberg of Cincinnati has reported in the *New York Medical Record* an important case in reference to the pathology of this disease. The patient was a man of twenty-one, who four days before admission to the hospital had discovered weakness in the right leg, with pain in the back and lower limbs, which prevented him from getting out of bed. The weakness soon extended into the left leg and also into the arms. There was some shooting pain in the limbs, but no impairment of sensibility to touch, although the temperature sense was very defective. The plantar reflexes were retained, the knee-jerks were absent, there was inability to

empty the bladder, and trophic disturbances over the sacrum, buttocks, and feet were manifested. Before death, which took place six days after admission, there were complete loss of power, delirium, inactive pupils, and profuse perspiration, and death took place by failure of respiration. The organs, except the cord, were found normal, but it is to be regretted that neither the medulla nor the basal ganglia were submitted to a microscopical examination. In the cord was found a condition of marked congestion with numerous capillary hæmorrhages, and at one point a small abscess in the lumbar region. The change was most marked in the anterior horns, more slightly in the posterior horns, the cells being either broken down altogether or considerably altered in character; the pia mater had also undergone inflammation. The case in its clinical characters resembles closely the type of the so-called Landry's paralysis, and the presence of a well-marked morbid condition in the cord is significant. The author is of opinion that the process is an infective one, and this explanation seems the most likely, especially in view of the close resemblance between this condition and paralytic rabies. What the character of the poison is remains for future research to determine.

A GERMAN MILITARY SURGEON ON THE TREATMENT OF INFLUENZA.

As influenza is again in our midst, it may be opportune to mention that Dr. Lorenz, staff surgeon in the Prussian Army, has reported that great relief was obtained in eighty cases of undoubted influenza after a single inhalation of a 2 per cent. solution of ichthyol. For this a steam spray apparatus was used, and it was repeated twice a day for a quarter of an hour or twenty minutes at a time. In addition to this, ichthyol was ordered internally in the form of pills containing a grain and a half each, one to five being taken daily. Also a vessel containing a 2 per cent. solution of ichthyol was kept in the room, and from time to time made to boil by applying a spirit lamp under it. In almost all the cases the symptoms are said to have entirely subsided in two or three days, but if the treatment were left off, then the cough and running at the nose were liable to recur.

THE GUNPOWDER EXPLOSION IN ROME.

AN Italian correspondent writes under date, Rome, April 24th: "Italy, in her present critical state—financially, politically, and socially—could ill brook such a terrible disaster as yesterday's explosion, with the far-reaching misery it must produce. This is the third calamity of the kind she has had to bear within comparatively few months, insomuch that suspicion is aroused as to its being due to quite other causes than the spontaneous slow combustion to which it has been attributed. Pending official investigation into the circumstances, it may be interesting to note the scientific aspects of the explosion as just communicated by Professor Pietro Tacchini, the well-known meteorologist and chemist. 'You cannot,' he says, 'have an explosion of 265,000 kilogrammes of gunpowder without the production of physical phenomena which convey the impression of an earthquake,' and this was precisely the first conclusion to which the Roman citizens came. The action of the explosion on the barometric column revealed itself in a depression of from 15 to 16 millimetres; or, to put it more familiarly, the action was equivalent to a force which in an instant produced a variation of weight of about 240,000 kilogrammes on every square metre of surface. The action, moreover, says Professor Tacchini, showed itself in the seismograph as a telluric movement—even at Rocca di Papa on the Alban Hills (twenty miles to the south of Rome), the seat of a seismic station, there were windows broken by the shock, and a railway train advancing on the metals experienced such a violent concussion that the engine-driver, thinking it had collided with some obstacle, lowered the brakes and came to a full stop. The material damage has been tremendous—460,000 lire being the estimate of the Communal Council alone of the expenses it must incur; while the injuries done to St. Peter's, St. Paul's outside the walls, and other basilicas and churches will run the total up to 2,300,000 lire. The hospitals have had their accommodation strained to bursting, and yet have proved inadequate to admit all the cases of contusion, fracture, and concussion brought to them from the scene of disaster. Such an unwelcome confirmation of his warning as to the need of the Policlinico, which still lingers on the way to completion, Dr. Baccelli could not have contemplated. Meanwhile, the mortality from the explosion has been small, thanks to the splendid coolness and courage of Captain Spaccamela, who, on first realising the danger, dismissed every man from the powder magazine to apprise the neighbourhood, in house and on highway, of the impending shock, and left himself but fifteen minutes to effect his own escape. At 300 yards from the powder magazine he was felled to the ground by a stone and conveyed to the Consolagione Hospital in the carriage of the King—first, as always, on the spot to render assistance. The energy and skill of the surgeons at all the hospitals have been conspicuous, and their reports, when in due time made public, will have a wider than local interest for the profession at large."

IMPORTANT IMPROVEMENT IN MICROSCOPIC LENSES.

IT is stated that an immense improvement has recently been effected in the manufacture of glass for optical instruments by means of the addition to the ordinary materials of phosphorus and chlorine, which in some as yet unexplained way cause the glass to be very much more transparent, and enable it to receive a much higher degree of polish than any optical glass hitherto manufactured. Thus microscopes can be made which will render objects of the diameter of only the one-eight millionth of a millimetre visible, whereas with the best instruments now in use the diameter of the smallest object that can be seen is one-sixteen thousandth of a millimetre.

TEMPORARY LIFE ASSURANCE.

WHEN writing in November last on the subject of Life Assurance for Medical Men, we observed that "in many cases it would be a great convenience to a proposer to be able to provide against premature death by means of a temporary assurance running for twenty, twenty-five, or thirty years, while he undertakes the accumulation of his own capital by means of investments which he could keep under his own management and control." Acting on this suggestion, the directors of the Royal Exchange Assurance Corporation have prepared a table of premiums for policy contracts of the kind indicated, which should prove of great value to those for whom it is intended. The advantage of such a form of life assurance is thus rendered very manifest. For example, we find on reference to the table that a proposer of thirty years of age can secure a policy running for a term of thirty years at an expenditure less by about a fourth than he would have to pay upon the lowest-priced table for a policy of equal amount running for the whole duration of his life. The importance of this facility cannot well be overstated. With many men, if not indeed with most, the chief purpose of a life-assurance policy is to secure dependants against the pecuniary disaster of the bread-winner's premature decease. This, in many cases, is done as effectively by a policy that will run for thirty years as by one that will last the

entire lifetime, since the period is quite long enough to secure the fruits of professional success. In the meantime, the amplitude of the provision made may be augmented in a very important proportion, since the amount of the annual premium is almost always the limiting factor in these arrangements. In this respect the policy of shorter duration is more useful than that of a longer term, and to the scheme of the Royal Exchange Assurance Corporation belongs the merit of having placed this important advantage within the reach of all who desire it.

DRAINAGE OF SPINAL CANAL IN ACUTE HYDROCEPHALUS.

THE cases recorded in another part of this issue from the Middlesex Hospital by Dr. Essex Wynter, will be read with interest in connexion with the communication made at the Wiesbaden Congress by Prof. Quincke. Although these cases terminated fatally, they demonstrated the feasibility and simplicity of the method employed to drain the cerebral ventricles in cases of tubercular or basal meningitis, by means of paracentesis of the spinal subarachnoid channels; and Prof. Quincke's more favourable result is encouraging in favour of a procedure which, if it do not always prove successful in a curative sense, may reasonably be expected to relieve the comatose symptoms attributable to the compression of the brain by the ventricular distension. It may be remarked that these cases seem to show that there is no necessary occlusion of the foramen of Magendie in basal meningitis.

UNQUALIFIED PRACTICE.

EVERY now and again some unwary unqualified assistant finds himself impelled by certain motives to plume himself in borrowed feathers, and to give himself titles to which he has no claim. A gentleman, who had passed all examinations except the final, recently found himself in this condition, that "he, being a medical assistant, practising at Arundel, did make a false statement on a certain medical certificate, bearing date Dec. 29th, 1890, by inserting therein certain qualifications as 'registered'—viz., L.R.C.S.Ed.,—with intent to have the name entered in the register of births and deaths of the district." He pleaded guilty, and expressed his regret for the offence. We quite agree with the opinion of the Bench that it was a very serious offence, which might have led to grave consequences. A fine of £5, with £2 3s. 6d. costs, will perhaps act as a useful deterrent to anyone who may be similarly tempted.

THE ROYAL BRITISH NURSES' ASSOCIATION.

THE discussion which has arisen concerning the application made on behalf of this institution to the Board of Trade for leave to register without the word "limited" as a part of its title has now received formal expression in two letters which have already appeared in the daily press, and will be found to-day in another column. The party of the opposition do not, indeed, lay down the grounds upon which they proceed; on the contrary, they adopt the view that it is not necessary "at the present moment" to discuss these matters, and they accordingly confine themselves to a statement of the perfectly well-known fact that they do oppose. It is, no doubt, their business to judge of the proper time and mode of putting their arguments forward; but we for our part cannot pretend to understand this somewhat enigmatic reference to the requirements of the hour. We should have supposed that the occasion of announcing the opposition would be the most suitable occasion for adducing arguments in support of it. One consequence of their declining the controversy in this way is that the supporters of the institution are left, for the present at least, in possession of the field, and no one who is swayed by the arguments put forward in the two manifestoes which we to-day publish will hesitate to lend his sympathies to the promoters of the application. Indeed, a careful reading of the letter emanating from their opponents leads us to suspect that even its signatories have not in every instance paid minute attention to what they have been asked to authenticate. For example, there is a eulogistic reference to "the guidance of his Grace the Duke of Westminster" in connexion with the management of the Lady Bloomfield Fund, which stands curiously over the duke's signature, and is certainly by no means in the approved form of polite letter writing. If signatures have been appended by inadvertence one can without difficulty understand that a number of distinguished persons may have signed what they will find it hard to justify. And this appears the more probable when it is borne in mind that the signatures in question are with one exception those of persons unconnected with the medical profession.

DEATH OF MR. T. H. BARTLEET, F.R.C.S., OF BIRMINGHAM.

WE regret to record the death, on the 29th ult., of Mr. T. H. Bartleet, from pneumonia, after a brief illness. Up to within a few days of his last illness Mr. Bartleet was seeing patients as usual. An influenza cold developed with rapidity into pneumonia, and to this disease he succumbed. We hope to publish in our next issue a sketch of the professional career of the deceased surgeon.

FOREIGN UNIVERSITY INTELLIGENCE.

Ghent.—Dr. von Vischer has been promoted to the Ordinary Professorship of Forensic Medicine.

Kazan.—Dr. Fortunatoff, Extraordinary Professor in Tomsk, is to be offered the chair of Anatomy.

Marseilles.—The Municipal Council has passed the vote required for the erection of a Faculty of Medicine.

Munich.—The new Surgical Clinic has just been publicly opened.

Prague (*Bohemian University*).—Dr. Kabrhel has been appointed to the chair of Hygiene. Dr. Helloch has been recognised as *privat docent* in Mental and Nervous Diseases.

St. Petersburg (*Helena Paulovna Clinical Institute*).—Dr. V. N. Reitz has been appointed Professor of Children's Diseases.

Tomsk.—Dr. Barzhinsky, of the Medico-Chirurgical Academy of St. Petersburg, has been nominated to the chair of Pharmacology.

Würzburg.—Dr. Gaetschenberger, a Kissingen physician, who recently died, has left nearly £1000 to be appropriated to the endowment of a chair of Balneology and a Balneological Institute. Dr. Schultze has been appointed to an Extraordinary Professorship of Anatomy.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Joseph von Pircher, a well-known physician at Meran, to whose exertions visitors to that health resort owe the erections of the Curhaus and the excellent water-supply; Dr. Mandon, Professor of Therapeutics in Limoges; Dr. Albarellos, formerly Professor in the Faculty of Medicine of Buenos Ayres; Dr. Luczkiewicz, formerly Professor of General Pathology in the University of Warsaw.

WE read in the last number of the *Orvosi Hetilap* that the remains of the late Dr. Semmelweis have recently been transferred from Vienna to Hungary, his native country, and, agreeably to the express wish of the family, were, on the 17th ult., quietly committed to their final rest in the Kerepesi Cemetery, at Buda Pesth, in the presence of relatives, professional friends, and the rector of the university; the staff of the Hospital of St. Rochus and the Hungarian Medical Society sent representatives, who deposited wreaths on the grave. Dr. Semmelweis, the originator of antiseptic treatment in puerperal women, which treatment has since been extended to the domain of the whole of surgery, died, as we know from his biography, in an asylum at Vienna, on July 20th, 1865. It is intended to perpetuate the resting-place and memory of this distinguished Hungarian physician in a manner worthy of his struggles and achievements.

UNDER Dr. Cameron's advice the Leeds Corporation have greatly increased their arrangements for disinfection. Some time since they acquired one of the steam disinfectors made by Messrs. Washington Lyon and Co.; they have now added to this one of Messrs. Goddard and Massey's steam chambers, this apparatus being in some respects improved by modifications introduced by Professor de Meyer of Utrecht.

DR. ALEX. EDINGTON, who has been selected by Sir Charles Mills, K.C.M.G., the Agent-General for the Cape of Good Hope, to inquire into the subject of the ravages of the phylloxera in the wine districts, is about to proceed to Capetown in the Union Steamship Company's R.M.S. *Moor*.

AN Italian Pharmacopœia is about to be published. This will be the first national formulary, those hitherto in use having been of the most varied description, consisting largely of more or less correct translations of French formularies, and having no general or official recognition.

THE GERMAN CONGRESS OF INTERNAL MEDICINE.

(*Continued from page 954.*)

Tuberculin and its Effects.—Angina Pectoris.—Treatment of Hydrocephalus.

PROFESSOR V. ZIEMSSEN (Munich) protested against Dr. Dettweiler's assertion that tuberculosis, prior to Koch's treatment, had never been thoroughly considered in clinics and hospitals, and he warmly upheld the value of the inductive method in medicine and the splendid services of Koch. Although he had several failures, on the whole the general result was satisfactory. Some change in the method, the better separation of toxic substances from the lymph, &c., may lead to progress. He had often seen good results subsequently become worse, due probably to too frequent and large injections. It was very important to select suitable cases, and he referred to Dr. Vogl's experience (*Münchener Med. Woch.*, Nos. 9 and 11) as showing the value of small doses and good hygiene, with selection of incipient cases. Good results had been seen at Meran. Many, no doubt, on return to their occupation and surroundings, lost ground gained during the treatment, showing that it should be repeated. In adults the initial dose should be 1 mgr., and the rise should be slow, never exceeding 50 mgr., or sometimes not more than 10.

Dr. FÜRBRINGER (Berlin) found that of more than 100 cases treated at Friedrichshain Hospital 5 per cent. lost all symptoms, 40 per cent. showed unusual improvement, 35 per cent. were scarcely improved, and 25 per cent. did not improve or grew worse; mortality, 15 per cent. The cases of marked improvement included some with marked infiltration, which, under similar conditions, would, apart from tuberculin, have certainly grown worse. He did not ignore the risks of the injection: (1) marked weakness of bad cases; (2) occurrence of acute, but resolvable, catarrhal pneumonia; (3) outbreak of tubercle around old foci; (4) liability to perforation of pleura, peritoneum, &c. The question whether tuberculin can excite caseous pneumonia and miliary tuberculosis in remote parts of the lung or in other organs was shown by a tabular comparison of eleven post-mortem examinations on subjects treated with tuberculin, and sixty-nine without this treatment.

	Treated by Tuberculin.	Not treated by Tuberculin.
1. More or less general miliary tuberculosis in	18 per cent.	.... 13 per cent.
2. Unusual miliary tubercle in lungs ..	36 ,,	.... 9 ,,
3. Exceptional extension of caseous pneumonia	33 ,,	.... 25 ,,

He said that during the past five weeks under better selection of cases his results had improved.

Dr. NAUNYN (Strasburg) asked whether the risks involved could be avoided. He had seen disasters occur under the greatest care and with a dosage according to Koch's prescription. Continued fever followed on violent reaction, sometimes death. Such dangers were unavoidable; they depended on the degree of reaction, which varied with the individual, not with the dose. One (not severe case) was injected from January to March, with dose increasing from ½ mgr. to 6 mgr., without notable reaction (only once 38° C.); then suddenly, after a dose of from 6 to 7 mgr., permanent fever, above 40° C., and death in a fortnight. He had seen five such cases out of eighty treated, and although he had also had favourable results, he had on this account abandoned the treatment.

Dr. KAST (Hamburg) saw in the contradictory views expressed that the discussion on the therapeutic value of tuberculin was premature; but it might now be decided whether it involves any risk. The weapon employed was not known. Was the lymph always uniform? Could its dosage be exactly estimated? Of 188 cases of phthisis treated at the Hamburg Hospital, 3 per cent. lost symptoms, 22 per cent. improved, 61 per cent. were unaffected, and 14 per cent. grew worse.

Dr. CORNET (Berlin) had treated 420 cases. He had seen very large doses borne without such accidents as he had formerly seen with smaller ones; but following the stream, he would now return to the latter. He had administered it by inhalation (Jahr's apparatus), with the effect of producing even stronger reaction than by injection. He had never found bacilli in the blood. His statistics were very favourable.

Dr. SCHULTZE (Bonn) agreed with Drs. Dettweiler and Naunyn. The hopes he had at first had not been fulfilled, so that since February he had injected no cases, and will not inject any more until more precise explanations concerning tuberculin are made. He protested against frequent surgical operations upon cavities, which may be compared to hollow trunks in a wood eaten up by caterpillars.

Dr. FREYMUTH (Dantzic) was also opposed to Koch's method. In no case had he found objective signs of improvement after the treatment, in spite of an apparent result. Diagnostically it was uncertain, and its composition is unknown. For the present, at least, it should no longer be used in practice.

Dr. PEIPER (Greifswald) had found it uncertain in diagnosis, for healthy people used to small doses. A toleration was rapidly established.

Dr. TURBER (Davos) had, contrary to Dr. Dettweiler, seen good results from the combination of climatic with tuberculin treatment, in unselected cases. Of 53 cases 1 died, 1 grew worse, 4 were unchanged, and 47 improved. In 14 cases the bacilli disappeared from the sputum.

Dr. THOMAS (Freiburg) was, on the whole, opposed to the treatment, although in some cases he had seen improvement.

Dr. VERRIEST (Löwen) held that more details of Koch's experiments should be published, and the experiments on animals be repeated before tuberculin was generally adopted as a remedy.

Dr. LENHARTZ (Leipsic) also urged the publication of further details, especially of the composition of the "lymph." His experience in the policlinic had not been unfavourable.

Dr. STINTZING (Jena) pointed out that diagnostically (1) the non-appearance of fever after injection is no proof against tubercle, and (2) the occurrence of fever is only a

proof when it follows doses below 5 mgr. His therapeutic results were better than in other methods; but of 130 cases only 5 could be described as relatively cured.

Dr. WOLFF (Görbersdorf) said in his experience selected cases did well under a combination of climatic treatment and that by tuberculin.

Professor NAUNYN summed up the discussion. There was general agreement that diagnostically tuberculin was of less value than therapeutically. On the latter point observation varied essentially in laryngeal and pulmonary cases; for whereas no one had controverted the favourable results obtained in the former by Dr. Moritz Schmidt, on the latter there were most divergent views. On many sides there seemed to have been more favourable results at the clinics this winter; but whereas some of the speakers ascribed this solely to the action of tuberculin, others considered it due to the greater in-rush of patients seeking treatment, which yielded better statistics, which are not comparable with those of previous years.

At the morning sitting on April 8th a discussion on Angina Pectoris was opened by Dr. A. FRAENKEL (Berlin). He described its etiology and clinical history, and its relation to disease of the bloodvessels and other organs. It is sharply distinguished from cardiac dyspnœa (cardiac asthma of Heberden), which, like bronchial asthma, may arise suddenly in heart disease (and granular kidney), but is characterised by severe dyspnœa. The distinction is difficult, as the two conditions frequently concur, for pure, well-marked cases of angina pectoris are rare (Stokes). Arising late in life, and more often in men than women, it is especially associated with sclerosis of the coronary arteries and valvular disease (mostly aortic). Gout, diabetes, syphilis, heredity, emotional disturbance, were causative of it, and he had seen it after acute infective disease. He described a typical seizure, the substernal pain and its irradiation down the arm or to the neck, shoulder, and elsewhere. The pulse during the attack is variable, may be irregular or slowed, or accelerated, or even normal. The heart sounds often have a fœtal character, the action of the heart may be "fluttering." Sometimes only a sense of oppression is felt. The attacks last from seconds to minutes, and even hours. The first attack may be fatal; often a patient may have a series of attacks in one morning, or he may be free for years from a second attack. The chief anatomical lesions are sclerosis of coronary arteries; then aortic valve defects and aortic aneurysm. The coronary disease may lead to softening and fatty changes in the heart wall, or fibrous changes and cardiac aneurysm. Cohnheim and others have shown that closure of the coronaries causes arrest of ventricle in diastole, followed by fluttering, contraction, and then death. The theory of Pavy and Traube explains angina by the sudden occurrence of weakness in an already enfeebled heart, causing dilatation of the ventricle and stretching of the nerves in the heart wall. This sudden weakening may be caused by anything producing a rise in arterial pressure. Against this view is the fact that objective evidence of cardiac weakness is not always present, for the pulse may remain normal. Potain attributed the pain to the supervention of anæmia of the heart muscle from interference with the coronary circulation. The attempts to refer angina to a neuritis of the cardiac plexus or vagus may be considered as exploded. Conditions allied to these were to be described as "pseudo-angina" of nervous origin, and independent of vascular disease, such as attacks arising from the abuse of tobacco, coffee, tea (rare); or in dyspepsia, liver disease, lead colic; or in tabes, hysteria, and Nothnagel's angina pectoris vaso-motoria.

Dr. VIERORDT (Heidelberg) dealt with diagnosis, prognosis, and treatment of the disease. He noted the difficulty in differentiating it from cardiac asthma, and said some cases of angina passed into the latter. He distinguished (1) angina vera from sclerosis or syphilis of coronary arteries; (2) angina from organic heart disease, pericardial adhesion, aneurysm; (3) toxic angina (lead and tobacco); (4) nervous, reflex, hysterical angina. In favour of organic angina (1 and 2) are the age of the patient and the presence of arterial sclerosis; whilst against it is the occurrence of an aura, the frequency of attacks, and the readiness with which they are borne. Prognosis is difficult and delusive in both the apparently slight as well as severe cases. The purely nervous form has a good prognosis, but that due to tobacco is less certain. Therapeutically in nervous angina narcotics, especially morphine injections, should be used. In organic angina first stimulation should be employed (injections of camphor) and then careful use made of narcotics. Morphine holds the first place. In England nitrite of amyl and nitro-glycerine are much used, but Dr. Vierordt would not employ them in organic cases; they were preferably used in nervous angina, especially in the vaso-motor form. Derivatives to heart and extremities were often of value. In the intervals, iodide of potassium and regulation of exercise. As to pathogenesis, he could not admit the theory of cardiac weakness, since it was not always present, and it was more associated with cardiac asthma. He thought the attack rather due to the action on the heart of some unknown agency, which if the muscle be healthy excites pain alone, and if it be diseased causes both pain and weakness.

The discussion which followed was shared in by Drs. Curschmann, v. Frey, Nothnagel, v. Ziemssen, and Schott.

Professor QUINCKE (Kiel) read notes of a case of Hydrocephalus treated, with relief, by trephining and puncture (six times repeated during one month). In another case, with meningitic symptoms, he had produced improvement of symptoms, and finally recovery, by puncture of the subarachnoid space of the spinal cord which communicates with the cerebral ventricles. In another case of an adult with symptoms of cerebral compression, possibly due to chronic hydrocephalus, 80 ccm. of cerebro-spinal fluid were evacuated through puncture in the lumbar region, with improvement in symptoms. A Pravaz syringe is inserted between the arches of the third and fourth lumbar vertebræ, and introduced to a depth of about 2 cm. in children, of from 4 to 6 cm. in adults. The cauda equina being at this spot, there is no risk of injury to the cord. The operation is indicated in cases of acute rise in the cerebro-spinal pressure, especially in tubercular meningitis. Perhaps permanent drainage of the spinal canal might be advantageous.

Dr. BAUMLER (Freiburg) thought that this idea of Professor Quincke was one which raised hopes for the cure of tubercular meningitis, just as laparotomy had cured tubercular peritonitis.

(To be continued.)

DR. KLEIN ON BACTERIA.

THE first of a series of three lectures on Bacteria: their Nature and Functions, was delivered at the Royal Institution on Tuesday last by Dr. E. Klein, F.R.S. He said that perhaps in no branch of biological science had advances in the methods of research within the last twenty-five or thirty years been so enormous as in this subject. In 1828 Ehrenberg recognised the existence in water of minute mobile organisms which he considered to belong to the group of animalculæ known as infusoria, an assumption which was now known to be erroneous. In 1837 Schwann demonstrated the presence in atmospheric air and in dust of living microscopic beings, which he showed by direct experiment to be endowed with the power of producing in certain fluids those chemical changes termed alcoholic fermentation or putrefaction. Pasteur fully established the proposition that the different fermentations, such as alcoholic, butyric, acetous, mucous, and lactous fermentations, and also the decomposition of putrescible matter, were caused by definite and different species of such minute living beings—microbes,—and that without them such changes did not occur. This proposition implied that these changes were dependent on and ultimately bound up with the life and growth of these microbes, and if these were prevented from gaining access to such fermentative matters, they would remain unchanged or sterile. This was the principle which Sir Joseph Lister had applied in surgery, with the well-known brilliant results. The *rôle* of these microbes in atmospheric air had been minutely worked out and beautifully illustrated by Professor Tyndall, whose share in finally establishing that with these simple organisms, belonging almost to the world of the infinitely small, the same fundamental principle obtains as in other living organisms of plant and animal life, be they ever so large and complex—namely, that each organism had descended from an antecedent parent organism, and that no such thing as their

origin from non-living matter occurred. Within comparatively recent times it had been shown that a variety of the most important and extensive processes of oxidation and reduction occur in nature, such as the oxidation and resolution of dead animal and vegetable matter, the breaking up of complex nitrogenous materials—such as albuminous substances, and their ultimate change into nitrites and nitrates, so essential to the life and growth of plants; that specific fermentation, so important in food stuffs and articles of diet, and many other processes are caused by, and intimately connected with, the growth and life of microbes. Though the importance of some species as useful agencies in nature is recognised, the importance of other species, as being the cause of disease affecting plants, animals, and man, is not less. The term micro-parasite is given to this latter group. Amongst the microbes there is one great group to be dealt with in particular, called "bacteria," because it possesses more or less the shape of a minute rod. Like the true or higher fungi, they are free from chlorophyll, and are composed of cells, a cellular membrane with living matter or protoplasm within, and they multiply by fission, for which reason they are called "fission fungi." Bacteria could then be defined as microscopic elementary organisms, composed of a cellulose investment of the protoplasmic contents, and which multiply by simple fission. They are classified into micrococci or cocci, bacilli and spiral vibriones, according to whether they are spherical, cylindrical, or curved and spiral. The lecturer exhibited a large number of micro-photographs of bacteria, prepared by Mr. Andrew Pringle and Dr. Bousfield.

All these organisms, when they have found suitable nidus, multiply with enormous rapidity. It has, for example, been found from observation—all conditions of moisture, medium, and temperature being favourable—that some multiply in twenty minutes, others in thirty minutes, and others in forty minutes. Staphylococcus aureus, which in its growth produces a peculiar golden-coloured filament, grows with great rapidity when sown in a medium-like, faintly alkaline broth at a temperature of 37° C. Into a sterile broth tube a definite number of organisms are put—say, eight cocci per cubic centimetre. If placed in an incubator for twenty-four hours at 37° C. and then counted, it is found that 1 cc. contains 640,000—that is to say, one organism has multiplied eighty thousandfold in the first twenty-four hours. It would not be expected that the same rate would obtain in the second twenty-four hours, because the materials had been used up. After forty-eight hours' growth the counting yielded 248 millions per cubic centimetre—that is, only four hundredfold. In seventy-two hours it was found that there were 1184 millions per cubic centimetre—that is to say, during the last day each had multiplied only fivefold. As the material is used up the rate of multiplication decreases. Another instance of the rapidity of growth was given. A rabbit was inoculated subcutaneously with 20,000 bacilli of fowl cholera, and died in twenty-four hours. It was found that 15,150,000 microbes were contained in 1 cc of the blood of the animal. The whole of the blood contained twelve hundred millions, showing that each bacillus in twenty-four hours had multiplied sixty thousand times. Those organisms which have their habitat in ordinary temperatures grow very rapidly. Professor Ferdinand Cohn was the first to study the rate of multiplication on the hay bacillus. He calculated that in two days the number of these would be so great that the whole Atlantic Ocean would be densely peopled by them if there was sufficient nutriment, which, fortunately, there is not, and therefore many of them had to go to the wall.

By the motility of bacteria is understood active locomotion. They spin round, they dart to and fro, and pass rapidly over the field of the microscope, and that is on account of their possessing one, two, three, or even a multitude of fine hairs. The organism of typhoid fever possesses several of these flagellæ. It has been shown that for retaining this motility a plentiful supply of oxygen is required. If, in a chamber, at one end oxygen is supplied, and at the other nitrogen or hydrogen gas, the organisms will all move towards the end where the oxygen is. If the oxygen is replaced by nitrogen or hydrogen the movement gradually ceases. If water is covered with a scum, it is most probably a motile bacillus which grows in the fluid, and which is driven to the surface, where it can derive the best supply of oxygen. In many cases the motility of the organisms is interfered with by their own chemical products.

Within certain of these organisms, but not in all, are formed peculiar corpuscles, which bear the same relation to the organisms as the seed does to the plant. This spore formation is almost entirely limited to the order of bacilli, and in this group there are very many species which do not possess this power. In a number of different species of bacilli, some of which are capable of forming spores and others not, those which have this power may look on very quietly, while those that do not will exhaust all the nutritive material present, growth and multiplication will then cease, and they will gradually die away. Those which form spores have a much better chance of bringing forth new generations than the others.

When organisms do not find suitable materials for their growth, certain changes are brought about called "involution changes." When the bacillus ceases to possess that high degree of vitality that the normal typical bacillus possesses, it gradually undergoes changes which lead to its death. Illustrations were given of what had been described as involution changes, but which were not so. For instance, tubercle bacilli grown under not very favourable conditions may be swollen, and others may appear branched. Some observers took these changes to indicate the death of the organism, but the lecturer was not quite sure that such were "involution changes."

In all these considerations, particularly in reference to the formation of spores, there were a number of facts of very considerable practical importance. The germination of those organisms which form spores takes place on the same principles as the germination of the spores in the higher fungi. The envelope is broken, the protoplasm contained within it shoots out in the shape of a rod, which when it is fully formed elongates, divides, and multiplies as in the case of the parent. In this way one bacillus, by repeated multiplication, forms a new crop. When these have reached a certain phase of development they again form spores which go to start a new generation. These spores have a much greater power of resistance than is possessed by the non-spore-bearing organisms, and can withstand high temperatures, dryness, and the influence of light, so much so that it has become almost a recognised method of determining whether a particular species of bacilli forms spores by subjecting the suspected organism to a temperature of 95° C. or 100° C. If they survive this exposure, and if they survive drying, it may be taken as established that the growth is spore-forming.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Torquay Urban District.—Mr. Karkeek devotes a considerable portion of his annual report for 1890 to the circumstances of the influenza epidemic, which was the cause of an increase in the rate of mortality. That rate was 17·1 in 1890, but after making deduction for deaths amongst temporary visitors it is only 15. The zymotic rate was 0·8 per 1000, a rate which many towns of 25,000 would envy; but Mr. Karkeek says it is the highest one for five years past in Torquay. The sanatorium has maintained its useful work; bakehouses, dairies, &c. have been regularly visited, 112 houses have been systematically inspected, and a considerable number of minor improvements have been effected. On the whole, Torquay has not much to complain of, even though a small rise in the general rate of mortality has taken place for a single year.

Chelmsford Rural District.—In referring to an increased death-rate for this rural district—namely, a rate of 15·6 per 1000—during 1890, Dr. Thresh notes a somewhat excessive infantile mortality and an excess of deaths both from measles and whooping-cough. He also draws attention to the high rate of mortality in Ingatestone and in Fryerning, which occurred mainly amongst children, but which he finds it difficult to explain. The results of school-closure in measles have been very various in different parts of the country, and the experience which Dr. Thresh records must be added to the list of the failures, for in one village where the schools were ordered to be closed for one month it is stated that during that period every child in the village

contracted the disease. The account given of thirty-five attacks of diphtheria is interesting, and it is typical of the careful records kept as to the circumstances associated with other forms of infectious diseases. Nearly all the complications and surroundings which make diphtheria difficult of explanation marked this group of attacks. In a number of cases polluted water seemed the most prominent circumstance; but, on the other hand, there were instances in which this cause seemed suggested, but in which sore-throats, the character of which had been unrecognised, had preceded the attack which had drawn attention to the water. On this subject it is well worth remembering that Dr. Klein's experience, as recently announced at the Royal Institution, is to the effect that the bacillus of diphtheria "is killed when kept for a few days in pure water," although the water to which Dr. Thresh refers may doubtless have lacked the character of chemical purity. Then, again, these Chelmsford cases were associated, some with sewage effluvia, some with emanations from so-called London manure, and others with allied conditions. "Drain sore-throat," as this affection is sometimes termed, preceded some attacks, and emanations such as we have referred to may have conduced to produce a condition of throat liable to receive diphtheritic infection. But sources of error often need elimination in this class of cases; and Dr. Thresh mentions one instance in which certain manipulations of London manure were suspected as a cause of diphtheria, but it was subsequently found that of the group of eight cases in question, the first one attacked only reached home the day after the manure operations commenced, having arrived from a hospital ward where another child lay ill of diphtheria.

Malden Rural District.—Dr. Thresh gives the death-rate for 1890 as 16·1 per 1000 living, against a mean of 14·8 for the ten years 1881-90. In referring to a prevalence of whooping-cough Dr. Thresh points out that school managers and teachers rarely report any outbreak of disease until it has spread amongst the scholars, and then they want a medical order for closing the school. In one case he was asked to give such a certificate antedating the order for closure, apparently so as to secure the grant for the period antecedent to the intervention of the medical officer of health; but this was very properly refused. During the year 27 cases of fever came under notice, 24 of them being enteric fever; but they were widely distributed, and no common cause seems to have been in operation in their causation. No less that 83 cases of diphtheria and croup were notified, by far the majority having taken place in Heybridge, Tolleshunt, D'Arcy, and Tolesbury, and the incidence of the disease is discussed at considerable length. A number of sanitary defects were discovered and remedied, but their connexion with the prevalence was not made clear. In three instances scarlet fever and diphtheria are stated to have appeared synchronously in houses; and having regard especially to the fact that the diphtheria somewhat preceded the scarlatina in two of the three instances, Dr. Thresh is inclined to look upon the two diseases as having some intimate association. The report includes a detailed account of the sanitary work and administration of the district.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 6079 births and 4661 deaths were registered during the week ending April 25th. The annual rate of mortality in these towns, which had been 22·9 and 22·5 per 1000 in the preceding two weeks, rose again to 24·3 last week. The rate was 21·0 in London and 27·0 in the twenty-seven provincial towns. During the first three weeks of the current quarter the death-rate in the twenty-eight towns averaged 23·2 per 1000, and exceeded by 1·4 the mean rate in the corresponding periods of the ten years 1881-90. The lowest rates in these towns last week were 11·6 in Brighton, 16·2 in Derby, 17·7 in Salford, and 18·0 in Bristol; the highest rates were 33·0 in Preston, 33·9 in Halifax, 36·5 in Hull, and 57·8 in Sheffield. The exceptionally high rate in the last-mentioned town was due to a severe epidemic of influenza. The deaths referred to the principal zymotic diseases, which had declined in the preceding three weeks from 468 to 420, rose again last week to 428; they included 151 from whooping-cough, 122 from measles, 51 from diarrhœa, 36 from scarlet fever, 35 from "fever" (principally enteric), 33 from diphtheria, and not one from small-pox. These diseases caused the lowest death-rates in Brighton, Sunderland, Norwich, and Derby, and the highest rates in Nottingham, Plymouth, Bradford, and Portsmouth. The greatest mortality from measles occurred in Salford, Blackburn, Plymouth, Oldham, and Portsmouth; from scarlet fever in Halifax and Bradford; and from whooping-cough in Nottingham, Newcastle-upon-Tyne, Plymouth, Bradford, and Leicester. The mortality from "fever" showed no marked excess in any of the twenty-eight towns. The 33 deaths from diphtheria included 28 in London, 3 in Cardiff, and 2 in Liverpool. No fatal case of small-pox was registered last week in any of the twenty-eight towns; 19 small-pox patients were under treatment in the Metropolitan Asylum Hospitals and 1 in the Highgate Small-pox Hospital on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 940, and showed a further decline from recent weekly numbers; the patients admitted during the week were 85, against 77 and 84 in the preceding two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 464 and 504 in the preceding two weeks, declined last week to 471, and exceeded by 83 the corrected weekly average. The causes of 109, or 2·3 per cent., of the deaths in the twenty-eight towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Norwich, Derby, Bolton, and Cardiff; the largest proportions of uncertified deaths were registered in Nottingham and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had declined from 26·7 to 22·6 per 1000 in the preceding four weeks, further fell to 22·1 during the week ending April 25th, and was 2·2 below the mean rate that prevailed during the same period in the twenty-eight large English towns. The rates in the eight Scotch towns ranged from 10·8 in Perth and 12·2 in Leith to 27·3 in Glasgow and 46·0 in Paisley. The 586 deaths in these towns showed a slight decline from the number in the preceding week, and included 43 which were referred to measles, 32 to whooping-cough, 7 to diarrhœa, 4 to diphtheria, 3 to "fever," 1 to scarlet fever, and not one to small-pox. In all, 90 deaths resulted from these principal zymotic diseases, against 80 and 81 in the preceding two weeks. These 90 deaths were equal to an annual rate of 3·4 per 1000, which exceeded by 1·2 the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of measles, which had been 33 and 41 in the preceding two weeks, further rose last week to 43, of which 24 occurred in Paisley, 13 in Glasgow, and 6 in Edinburgh. The deaths from whooping-cough, which had been 25 in each of the previous two weeks, rose to 32 last week, and included 20 in Glasgow and 5 in Dundee. The 4 fatal cases of diphtheria were fewer than those recorded in any recent week, and included 2 in Glasgow. The deaths referred to different forms of "fever," which had been 6 and 1 in the preceding two weeks, increased to 3 last week. The deaths referred to diseases of the respiratory organs in these towns, which had declined from 201 to 142 in the preceding six weeks, were 143 last week, and 13 below the number in the corresponding week of last year. The causes of 49, or more than 8 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 30·6 and 27·5 per 1000 in the preceding two weeks, further declined to 27·0 during the week ending April 25th. During the first three weeks of the current quarter the death-rate in the city averaged 27·0 per 1000, the rate for the same period being 20·5 in London and 17·7 in Edinburgh. The 156 deaths in Dublin showed a decline of 30 from the number in the preceding week, and included 4 which were referred to whooping-cough, 1 to "fever," 1 to diarrhœa, and not one either to small-pox, measles, scarlet fever, or diphtheria; in all, 6 deaths resulted from these principal zymotic diseases, against 8 and 7 in the preceding two weeks. These 6 deaths were equal to an annual rate of 0·9 per 1000, the rate from the same diseases being

1·9 in London and 1·7 in Edinburgh. The fatal cases of whooping-cough, which had been 2 and 7 in the preceding two weeks, declined again to 4 last week. The 156 deaths in Dublin last week included 24 of infants under one year of age and 59 of persons aged upwards of sixty years; the deaths of infants showed a further decline from those recorded in recent weeks, while those of elderly persons showed an increase. Three deaths from violence and 5 inquest cases were registered during the week, and 43, or more than a fourth, of the deaths occurred in public institutions. The causes of 20, or nearly 13 per cent., of the deaths last week in the city were not certified.

THE SERVICES.

ARMY MEDICAL STAFF.—Surgeon-Major H. Archibald Fogerty, M.D., is placed on temporary half-pay (dated April 15th, 1891).

INDIAN MEDICAL SERVICE.—Brigade Surgeon Hamilton is appointed to the administrative charge of the Allahabad District in place of Deputy Surgeon-General Rudd; Brigade Surgeon Graves succeeds Deputy Surgeon-General Hinde at Poona; Deputy Surgeons-General Warren and Walsh are under orders for India, the former for Poona and the latter for Allahabad.

NAVAL MEDICAL SERVICE.—In accordance with the provisions of Her Majesty's Order in Council of April 1st, 1881, Deputy Inspector-General of Hospitals and Fleets William Jas. Eames has been placed on the Retired List at his own request, with permission to assume the rank of Inspector-General of Hospitals and Fleets.

VOLUNTEER CORPS. — *Artillery:* 1st Glamorganshire: George Herbert Hopkins, Gent., to be Acting Surgeon (dated April 25th, 1891).—*Rifle:* 1st Volunteer Battalion, the Royal Warwickshire Regiment: Richd. Arthur Newton, Gent., to be Acting Surgeon (dated April 25th, 1891).—4th Volunteer Battalion, the Cheshire Regiment: Surgeon W. E. S. Burnett is granted the rank of Surgeon-Major, ranking as Major (dated April 25th, 1891).—2nd Volunteer Battalion, the Cameronians (Scottish Rifles): Surgeon and Surgeon-Major (ranking as Lieutenant-Colonel) J. Loudon, M.D., resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the Battalion on his retirement (dated April 25th, 1891).

Correspondence.

"Audi alteram partem."

"THE PROPOSED RECONSTITUTION OF THE LONDON UNIVERSITY."

To the Editors of THE LANCET.

SIRS,—Permit me to make a brief comment on a statement in Dr. Hale White's letter published in your last issue. Dr. White states that the Senate of the University of London received a letter dated March 3rd, 1891, expressing the acceptance of their last promulgated scheme by certain London medical schools (named). I was at the epoch mentioned, and am still, a member of the Medical Council of one of these (named) hospitals and of the governing body of the medical school attached thereto. I am sure that the project of the Senate has never been considered by the one nor has it appeared on the agenda paper of the other of these bodies. I am forced to conclude that the letter in question does not afford very reliable support to the views expressed by Dr. White. I am equally sure that I am not alone among my colleagues in the belief that whilst the scheme in question will destroy the value of the degrees of the London University, it will not meet the legitimate demand of the London medical student.

I am, Sirs, yours faithfully,

London, April 24th, 1891. M.D.LOND., F.R.C.P.

PUBLIC HEALTH AND PROFESSIONAL COURTESY.

To the Editors of THE LANCET.

SIRS,—In your impression of April 4th, 1891, and amongst the annotations, is to be found the above, and upon which you comment. In view of your not having had a copy of my report *in extenso* I beg to enclose you one, which I will ask you to carefully peruse, and specially that part of it relating to the outbreak of diphtheria at Brandon. This part of it is, *seriatim*, a copy of the special report which I presented to the Thetford Rural Sanitary Authority, under whom I act, and also to the Local Government Board, at their request in June last, 1890. Neither of these councils have asked me for an explanation of any of the paragraphs, and therefore I conclude they interpreted them in the light intended by me, but to which exception seems to have been taken by your correspondent. No one has been more astonished than myself at the misconstruction which has been placed upon them, and I can only regret that your correspondent should have imputed to me the charges of professional discourtesy.

I distinctly deny that any part of the report was intended as a reflection upon the conduct of the cases of diphtheria by the medical attendant, but it was rather an admonition to the public generally and a repetition of the tenets which I have repeatedly advocated in former reports, in order that early and timely medical advice should be obtained, and thus give the medical attendant a fairer prospect of conducting his case to a successful issue, and also to facilitate the work of the health officials. In the paragraph of which complaint is made, I was led to infer this (*a*) from the personal statement of the medical attendant to me, and (*b*) his admission by letter, *which I possess*, "that it is a great question whether sepsis may not account for the bronchitis." Under this suggestion had I not reasonable grounds for regarding its possible origin in the illness at Leeder's house? And this eliminates the charge of my *going behind the certificate of death*.

With regard to the examination of the infectious cases, I admit having seen some of them, *but at his request*, as he was anxious about the serious phase the cases assumed. It must be evident there could be no particular wisdom in courting infection myself, except for some mutual or ulterior good purpose. I have endeavoured to lay before you a *bonâ-fide* statement, which I feel persuaded will enable you to absolve me from the charge of which I have been accused.—I am, Sirs, yours faithfully,

Brandon, Norfolk, April 20th, 1891. FREDERICK JOY.

*** We are glad to receive Mr. Joy's letter, which was unfortunately crowded out of our last issue. Our comments were largely based on such expressions as that "the element of fatality in every case, save one, which attended the outbreak was mainly due to imperfect medical supervision," and the assurance of our correspondent that the medical officer of health "never saw, either ante mortem or post mortem, the children Leeder and Dyer." But it would seem clear that such wording of the report as appeared to imply slight were never so intended, and we feel confident that Mr. Joy's assurance to that effect will be accepted in full.—ED. L.

THE TREATMENT OF GALL-STONES: A SUGGESTION.

To the Editors of THE LANCET.

SIRS,—Mr. Walker's case of "Removal of Gall-stones by Ether Solution," which was published in your issue of the 18th inst., has been specially interesting to me. For some five or six years ago, when a student in the class of physiology and pupil to a surgeon, under whose care I had seen a case of biliary colic, the idea struck me that if ether were to be injected with a hollow needle direct into the gall-bladder gall-stones might be dissolved *in situ*. And ever since then I have been very anxious to test this method, and have mentioned it to several friends with the hope of meeting with a suitable case, but so far I have not been successful. The few cases of biliary colic which I have had the opportunity of seeing have yielded quickly to opiates and general treatment. Of course, in a case such as Mr. Walker reports, where there is a sinus leading into the gall-bladder, the treatment he adopted was as simple as it was ingenious and rational. But, on the other hand, grave difficulties surround the injection of solvent fluids direct into the gall-bladder by the "hypodermic" method. In the first place, we must have a case in which the gall-bladder can be localised against the abdominal

wall; secondly, we should have the facilities for immediately performing the operation of cholecystotomy should any symptoms of general peritionitis &c. threaten. Next, as to the dangers of intra-cystic injections: (1) Inflammation and suppuration of the gall-bladder and its sequelæ; (2) the needle prick might possibly (the obstruction not yielding) lead to extravasation within the peritoneal cavity, though probably adhesions would ere this have been contracted or lymph have closed the aperture. How might these dangers be obviated? (1) By being careful not to inject too irritating a solvent; (2) by, if possible, removing some of the fluid from the gall-bladder previously to injecting the solution. I have always intended injecting a mixture of ether in olive oil with the hope that the oil would do away with the risk of causing inflammation &c. To this a little chloroform might be added. I should feel inclined always to employ a solution containing some alcohol in addition to the above. For when bile stagnates for any length of time the bilirubin is transformed into biliverdin, which is only slightly soluble in ether and not at all in chloroform. But biliverdin is soluble in alcohol, whereas cholesterin is soluble in either ether, chloroform, or warm alcohol, and bilirubin is soluble in chloroform.[1] And the composition of gall-stones is well known to be either pigment or cholesterin separately; or both these combined.

I feel that the method of treatment which I have thus endeavoured to explain may be at least worthy of a trial; and I cannot but think that had Mr. Walker's patient been subjected to intra-cystic injections of such a solvent as I have suggested it might have so lessened the obstructing stone as to have allowed it to pass into the intestine; and that even possibly under repeated injections the remaining calculi might have gradually been dispersed; and thus the operation of cholecystotomy not been required. (Of course, experience only can show whether or not intra-cystic injection would not be more dangerous than cholecystotomy.) The fact that there is no reference whatever to intra cystic injections for gall-stones in the standard works of medicine, or in Dr. Neale's "Digest," may be a sufficient apology for the above suggestions which I offer for the consideration of your readers. I am, Sirs, yours faithfully,

MARCUS M. BOWLAN.

Workhouse Hospital, Newcastle-on-Tyne, April 22nd, 1891.

[1] Vide Landois and Stirling, 3rd edition, pp. 268-9.

TACHYCARDIA.

To the Editors of THE LANCET.

SIRS,—In an article appearing in the March number of the *University Medical Magazine* (Philadelphia) Professor H. C. Wood has effectively delineated a class of cases interesting alike by reason of rarity and obscure origin. They are the more worthy of note at the present time, when the general subject of angina, to which they are akin, has in the Medical Society of London elicited so various opinions. Dr. Wood proposes the restriction of the name "tachycardia" to those cases in which very violent heart action occurs without obvious reason, and remarks that "most of them belong to one of three classes: first, those in which there is paralysis of the pneumogastric or inhibitory nerve; second, those in which the cardiac disturbances are reflex; third, those in which the affection may be considered as strictly a neurosis. Of the second variety he observes that he has never himself seen a case, "though Rommelaere reports one in which he asserts that an extremely rapid action of the heart was due to the irritation caused by biliary calculus." An instance of this form of tachycardia came under recent observation in the person of an American lady visiting the family of a friend in my immediate vicinity. She was an intelligent woman of middle age, of healthy configuration, but at the moment of my entrance in apparently great distress. Orthopnœa and a degree of cyanosis were present, and her account was rendered in whispers, delivered in an ejaculatory manner.

This was her fourth attack, all of them occurring within a period of two years. They had come on always immediately after a hearty meal, *which had included pickles or fruit, and which followed upon considerable physical fatigue.* She had had skilled attendance, and a variety of treatment during the attacks, but nothing availed until the stomach was emptied medicinally. The pulse was hardly to be felt at the wrist, and was estimated under auscultation at 200. Respiration was hurried and short, and the dyspnœa was painful to witness. At her urgent request I administered emetine in full dose, with a draught of warm water. Upon the first copious emesis the pulse reappeared in full beats, giving five or six impulses at a rate of 48, then, within a half minute, falling into a rhythm of 80, which continued during my observation. All difficulty of respiration passed away with this recovery of the pulse, and in a very short time the patient expressed herself as being "perfectly comfortable." Careful examination detected no evidence of organic disease of the heart, and no other diagnosis now appears so appropriate as that of "reflex tachycardia."

I am, Sirs, yours truly,

H. WEBSTER JONES, M.D.,
Yale University.

Langham-street, W., April 27th, 1891.

INTERNATIONAL CONGRESS OF HYGIENE AND DEMOGRAPHY.

To the Editors of THE LANCET.

SIRS,—Will you allow us to draw the attention of the readers of THE LANCET to the forthcoming International Congress of Hygiene and Demography which will be held in London in August next under the presidency of H.R.H. the Prince of Wales. The last meeting of the Congress took place in Vienna in 1887, where members from all countries were most hospitably received and entertained. Experience of former congress meetings shows that the necessary expenses of the arrangements for the reception of from 3000 to 4000 members, the printing of transactions, correspondence and postage, cannot be kept lower than £6000 or £7000. We venture to appeal therefore to all those who are interested in the progress of hygiene, the improvement of public health, and the amelioration of the conditions under which the inhabitants of towns and other groups of population exist, to aid the committee in their endeavours to make the London meeting of the International Congress not only a success, but worthy of the country which has always been distinguished not only for its hospitality, but as a power in the work of practical sanitation. All donations from members of the medical profession will be acknowledged in THE LANCET.—We are, Sirs, yours faithfully,

DOUGLAS GALTON,
Chairman of the Organising Committee.
W. ROBT. CORNISH,
Chairman of the Finance Committee.
G. V. POORE,
Hon. Sec. General.

N.B.—Full particulars and list of donations will be found on pages 63 and 64 of our advertisement columns.

CLINICAL INSTRUCTION IN INFECTIOUS DISEASES.

To the Editors of THE LANCET.

SIRS,—As you are drawing attention to the facilities afforded to medical students for becoming acquainted with the symptoms and treatment of infectious diseases, I think it opportune to remind your readers and the President of the Society of Medical Officers of Health, who also has been alluding to this important subject, that no difficulties have ever attended instruction in this department of medical study so far as Edinburgh is concerned. From the first the corporation insisted on clinical instruction being given in the City Hospital. Classes have been successfully carried on during the last five years, and nearly 200 students annually take advantage of them, from six to eight separate courses being given during the session. I am informed by Dr. Wood, the medical superintendent, that "two years ago it seemed highly probable that one student contracted scarlatina." This is the only case in which there has been any suspicion of infection having been contracted in connexion with these classes.

I am, Sirs, yours faithfully,

HENRY D. LITTLEJOHN,
Medical Officer of Health.

Edinburgh, April 29th, 1891.

"THE VALUE OF TUBERCULIN IN THERAPEUTICS."

To the Editors of THE LANCET.

SIRS,—I should feel obliged to you if you would kindly allow me to refer in a few lines of the next issue of

THE LANCET to a remark made in one of your leading articles to-day.

The first sentence of the paragraph, beginning half-way down page 943 of THE LANCET, runs thus: "It is somewhat remarkable that the most damaging criticism upon the use of tuberculin as a remedy—that, namely, which was made on the authority of Professor Virchow—should have been passed over in silence by Dr. Heron." Whatever Professor Virchow may say concerning a matter of importance in pathology is entitled to be received by every medical man with the greatest respect. My reason for passing over in silence his criticism, to which you refer, is that I have never seen such cases as those mentioned by Professor Virchow. Until I have seen such cases, or until the evidence touching them is completed, it would, I think, ill become me to express any opinion about them.

I am, Sirs, yours faithfully,

Harley-street, W., April 25th, 1891. G. A. HERON.

THE ARMY MEDICAL STAFF.

To the Editors of THE LANCET.

SIRS,—Mr. Stanhope having intimated his willingness to confer military and medical titles upon officers of the medical staff in accordance with the recommendation of his own committee, the earlier request of Sir Andrew Clark, and presumably with the concurrence of the Director-General, it is to be hoped that you will use your powerful influence in protesting against the refusal of a concession which must have cost "my military advisers" a considerable twinge. The ranks would be better defined, and, as a first step in the direction of a corps of Royal Surgeons, these titles would be of undoubted advantage in familiarising the public and the army to a change which must come sooner or later. The concession would satisfy a large proportion of the officers, and, if substantive titles with the present limited command, were distinctly laid down, should allay agitation in a profession which can point to quite as honourable a history as that of the profession of arms.

I am, Sirs, yours faithfully,

April 26th, 1891. SENIORES.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Small-pox.

AFTER having had no cases of small-pox for two years, the Health Committee report an outbreak in one quarter of the city occurring in four houses. Seven patients were implicated; these were promptly removed to the Borough Hospital and the houses disinfected. It is believed to have been introduced by a traveller, who brought it from Lisbon in his clothes, one who himself escaped the disease. Of course this is somewhat difficult of proof. The outbreak has caused some consternation, and has elicited a series of letters in the local press.

Dr. Koch's Treatment.

A largely attended meeting was recently held at the Medical Institute to hear the results of various local exponents of this treatment. The discussion was opened by Mr. Barling, who gave an interesting series of cases treated by him in the General Hospital. Various other speakers also gave instances, and their respective views were received with considerable attention. On the whole, the tendency of the discussion showed that though in many instances marked benefit had been obtained, there was yet not sufficient evidence of the remedy affording permanent cure. *Apropos* of this meeting, indignation has been freely expressed at a report of it appearing in an evening paper of the following day.

Midland Counties Idiot Asylum.

The annual meeting of this useful institution was held this year at Shrewsbury, under the presidency of the Mayor. According to the most recent figures, the number of idiots and imbeciles in Shropshire was 1730, in Warwickshire 1515, Leicestershire 1341, Worcestershire 1169, and Staffordshire 1164. The institution is situated at Knowle, near Birmingham, and receives fifty patients. A sub-committee was appointed to consider the question of enlargement, and it was resolved to proceed as soon as £2000 had been raised. The financial report was fairly satisfactory, and much good had been done towards improving the condition of the patients.

Prosecution under the Medical Act.

An important prosecution undertaken by the Medical Defence Union took place at Aston on the 28th inst. A Mr. S. E. L. Smith, whose name is on the Register as an L.S.A., was the defendant. It was shown that he had on many occasions signed himself as M.D.; on a brass plate outside his house he is described as "Physician and Surgeon," and on another plate as "Dr." Smith. The defence set up was that the Act was not meant to punish duly qualified practitioners from assuming a higher title than that possessed, but for the prevention of quackery and against those holding no qualification at all. Defendant passed the examination of the Society of Apothecaries in 1885, and in addition obtained the degree of M.D. of Indianapolis. Some amusement was caused in court by the reading of a testimonial in favour of a certain wine being suitable for invalids, and signed with the defendant's name, and the initials of M.D., L.R.C.P., L.M., and L.S.A. (Eng.). On being asked the meaning of the second series, the defendant replied that it meant Legally Registered General Practitioner. Some discussion followed, and eventually the defendant was fined the maximum penalty of £20 without costs. In two other cases defendant was also fined 40s. and advocate's fee, and in each instance a case for appeal was granted.

Birmingham, April 27th.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

The Infirmary.—Nurses' Pensions.

AT present there has been no new development with regard to either the proposed extension of the infirmary or the erection of a new hospital upon the site offered by the College; in fact, both bodies are, in Yankee phrase, for the time being, "lying low." But all those interested in the question are looking forward with considerable interest to the next move on either side, and periodically communications appear in the daily papers, not unfrequently in strongly worded epistles. Thus one gentleman, speaking evidently from the college standpoint, asks whether "there is less smoke and sulphurous acid in the neighbourhood of the infirmary now than some few years ago, when the site was unanimously condemned by the staff and governing body? Whether it has been discovered that the conditions which have killed the hollies and shrubs around the infirmary are favourable to human invalids? Is fog found to be a wholesome counter-irritant, or are the noise and racket of Piccadilly excellent tonics for weak nerves?" That the Infirmary Board feel they owe their constituents a more explicit statement of the reasons which have led them to decline the College offer was practically admitted by the chairman at the board meeting held yesterday, for he said that a statement was in course of preparation defending their position, and would shortly be placed in the hands of the whole body of subscribers. At the same meeting the Board established a scheme of pensions for their nurses which provides an annuity of £25 per annum to those who have been on the staff for twenty-five years, and who shall have attained the age of fifty-five. It also provides for gratuities or pensions to nurses of ten years' service whose health shall break down whilst in the discharge of their duties so as to unfit them for further nursing work. Hitherto the pensioning and relief of old servants have been carried out in a rather haphazard way, without any fixed or definite rules being laid down.

Air Pollution.

A further report upon the impurities of our atmosphere has been issued by the "Noxious Vapours Abatement Association." Samples of rain water were examined from the centre of the city and from the middle of Ancoats, one of the murkiest and most air-polluted of our districts. The analyses show that the suspended matter is three times more in Ancoats than in the centre of the city. Of the matters in solution, the organic matter was much greater in the city than in Ancoats, but the free ammonia, sulphurous and other acids were largely in excess in the latter district. The figures, for which Mr. William Thompson,

one of our well-known analytical chemists, is responsible, are as follows :—

	Grains per gallon rain water from Ancoats.	Manchester.
Suspended matter	27·194	9·330
which is composed of—		
Mineral matter	13·962	0·085
Soot, organic matter, combined water, &c.	13·232	9·245
	27·194	9·330
Total solid matter in solution	6·440	6·80
which is composed of—		
Organic matter, combined water, &c.	2·060	5·24
Mineral matter	4·380	1·56
Free ammonia	0·546	0·202
Albuminoid ammonia	traces	traces
Chlorine	0·268	0·833
Oxygen contained in permanganate of potash required to oxidise organic matters &c.—		
Acting at 80 deg. F. during 15 minutes	0·2786	0·3997
Acting at 80 deg. F. during 4 hours	0·3828	0·8571
Sulphurous acid	0·4004	none
Free acid calculated as sulphuric acid	1·029	0·2058

The same subject came up for discussion at the recent meeting here of the North-western Society of Medical Officers of Health, when Dr. Thompson, the President for the year, took it as his text for an inaugural address. In the discussion that followed, many of the speakers, including magistrates, engineers, as well as officers of health, contended that the time was fully come when public authorities should deal vigorously and determinedly with this plague of our large towns, that there were ample powers for so doing, and that practical means were available for very largely abating this unwholesome factor of town life.

Trained Nurses in Workhouse Hospitals.

We have recently had a public meeting (presided over by the Right Hon. J. T. Hibbert) to support the work of the Northern Workhouse Nursing Association. We have now for so many years in Manchester been used to find properly trained nurses in the sick wards of our workhouse that one was apt to think an equally satisfactory condition of things existed generally elsewhere. From the statements and remarks made by various of the speakers it appears that this most desirable, and one might almost say humane, arrangement is far from being universal. If it could but be instilled into the brain of the average guardian, in every Poor-law union, that skilled nursing is in the end more economical than the makeshift, inefficient arrangements which have in the past been far too prevalent, the desired change would be quickly brought about. But a question of this sort ought not to depend merely upon £ *s. d.* An influential and representative committee was appointed for furthering the aims of the Society.

Salford Hospital &c.

Upwards of half a dozen times have the Salford Guardians had the appointment of a resident medical officer to their hospital at Hope before them ere they could make up their minds upon the subject. It has at last been settled by the appointment of Dr. Garry, and it is to be hoped that things at this institution may now proceed more smoothly than has been the case during the past few years. At the last meeting the Town Council ordered the closing of twenty cellar dwellings. Few people fully realise what cellar dwellings really imply to those who are unfortunate enough to inhabit them. It is stated that some 200 of these still exist in our neighbouring borough—at least, Manchester has not this sanitary sin upon its shoulders.

Manchester, April 28th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

The Increased Death-rate of Newcastle.

WITH regard to the high death-rate recently noted in Newcastle (31 per 1000), the medical officer of health, Mr. H. E. Armstrong, reported to the Sanitary Committee of the Corporation that in a total of 205 deaths during the fortnight ending April 18th, the principal factors were—zymotic diseases 13 (including 10 from whooping-cough) and diseases of the respiratory organs 53; the remaining causes of death were comprised in phthisis, scrofulous diseases, diseases of the heart, diseases of the brain and nervous system, and old age. Excepting with regard to whooping-cough, the zymotic death-rate has not been high.

The Chief Constable on Crime in Newcastle City.

Captain Nicholls, in his report to the Watch Committee, says that the condition of the city as to serious crimes has been satisfactory, but that a comparison of the quarter with the corresponding one of 1890 shows that an increased number of about 600 persons had been proceeded against. The large increase, he explains, is made up by greater vigilance as to drunkenness and parents ill-treating their children. Visits had been made to 177 families, the parents of whom had been proceeded against under the Act of 1889; the families represent 625 children. An experienced constable visits these families, and has so gained their confidence that they now look upon him as their benefactor, and often seek from him advice and assistance.

The Influenza in the North of England.

Since I last wrote the influenza epidemic has considerably extended its area in the north of England, and it may be said to reign from the Humber to the Tyne. Hull has felt it severely; also Scarborough and many of the North Yorkshire towns and villages, especially Ripon and the Northallerton district. In the Hartlepools, and indeed on both sides of the Tees, it has been rife, many of the resident practitioners being much overworked.

Stockton and Trained Nurses.

An influential meeting has been held at Stockton to consider a scheme suggested by Lady Londonderry for an institution for trained nurses for Stockton. The Mayor presided, and there was a very representative meeting. It was proposed and decided to start with four nurses, who would cost about £400, to attend the sick poor in the Parliamentary borough, and that such institution should be established irrespectively of politics or creed.

Darlington and the Cremation Question.

The people of Darlington had the cremation question very fully presented to them at a public meeting at which the Mayor presided, and an able address was given by Professor A. W. Hare, in which he showed that there was no subject which had a more direct sanitary bearing than the disposal of the dead, and that its importance would become greater and greater as from decade to decade the census showed an increase in the population of the country. A motion in favour of cremation and of a crematorium being erected in Darlington was carried with only a few dissentients. Mr. Manson, surgeon, in proposing a motion, mentioned that in Darlington and the district they had heard for some years about the pollution of the river Tees and the consequent pollution of the drinking water. Amongst other pollutions was the drainage from eighty churchyards, and he pointed out that "wherever places of sepulture were they were to be drained, and the Darlington people were drinking the liquid." He said the fact should bring home to their minds that earth burial was dangerous to everyone of them, and that cremation was to be advocated on sanitary grounds.

Middlesbrough.

At a late meeting of the Middlesbrough Fever Hospital Committee it was stated that there were now in the hospital twenty-four patients, and that the expenditure for the past year would exceed the estimate by about £500, owing to the epidemic of typhoid fever with which the town had been visited. At a meeting of the Port Sanitary Authority Dr. Malcomson was reappointed medical officer. A large number of foreign and home vessels had been visited, and seamen found suffering from infectious diseases had been removed to the floating hospital. The annual meeting of the North Ormesby Cottage Hospital near Middlesbrough has been held, and a record of good work has been presented, the medical officers and sisters receiving the warmest thanks of the council. Owing to the great increase in the number of patients in the out-door department, it had become necessary to extend the hospital buildings, there being 9000 attendances during the year. An appeal made to the working men of the district had produced over £600. The house-surgeon's report showed that 483 in-patients had been admitted, and that the increase of in-patients over the previous year had been forty-one.

South Shields.

A numerously attended meeting of representative members of the various friendly societies has been held at South Shields, at which the Mayor presided, for the purpose of promoting the Friendly Societies' Convalescent Home lately

established at Grange-over-Sands. The Mayor thought it would be an improvement in the management if honorary members like himself could have tickets to use for some of the poorer workmen, and with this suggestion the meeting appeared to agree.

The High Death-rate at the Durham County Asylum, Sedgefield.

Dr. Smith, the superintendent of the Sedgefield Asylum, in his yearly report, in reference to the high death-rate of the asylum, says "deaths had been very numerous. There was an alarmingly large proportion of disease found in patients who had been a long time in the asylum, and who on their admission showed no trace of disease; 37 per cent. of the disease was lung disease. Where large numbers of people congregated in a house there was always a tendency to lung disease, and especially if the rooms were badly ventilated, or, what was the same, overcrowded." Dr. Smith says that another factor in the production of lung disease was the abstraction of oxygen from the atmosphere owing to the use of coal gas as an illuminant, and the escape of its poisonous products into the rooms. This, he believed, was a much more frequent cause of lung disease than was usually thought. During the year the large number of 1490 patients had been under treatment, of whom 147 had recovered. Dr. Smith's opinion of the New Lunacy Act is that it would merely increase the work and expense.

Newcastle-on-Tyne, April 27th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

EDINBURGH.

Opening of the Summer Session.

THE summer session in the Faculty of Medicine, Edinburgh, opens on Monday, the different classes, both in the University and the extra-mural school, being advertised to begin on that day.

Medical Officers of Health Society.

Last week a meeting of the medical officers recently appointed by the County Councils was held in the rooms of the Royal Medical Society of Edinburgh, at which it was resolved to form a society of medical officers of health, and that medical men holding diplomas in Public Health might be associated with it. A committee was appointed to draw up a constitution for the Society, and it was resolved that meetings should be held alternately in Edinburgh, Glasgow, and Perth.

Health of Edinburgh.

The mortality last week was 90, making the death-rate 17 per 1000. Diseases of the chest accounted for 26 deaths and zymotic diseases for 8, of which 5 were due to measles and 3 to whooping-cough. The intimations for the week were 2 from diphtheria, 19 from scarlatina, and 114 from measles.

A new University Hall at Edinburgh.

There has recently been founded in connexion with Edinburgh University a "University Hall," the object of which is to inaugurate among Edinburgh undergraduates a system of social residence such as obtains in the English Universities. Two buildings have been taken over for this purpose—one at Mound-place, another at Riddle's-court, and already there are nearly thirty residents.

GLASGOW.

The Census and the Death-rate.

At the last meeting of the Town Council the fact was pointed out that during the last decade the estimate of the population made by the medical officer of health and that made by the Registrar-General had differed very considerably, and that the result of the census had shown that the medical officer was very much nearer the truth than the Registrar-General. The figures given by the latter as the estimated population of Glasgow in 1890 were 532,282. The census of those within the municipal boundaries made it 564,975, the estimate of the medical officer having been 567,656. The result of this difference in the estimate of the population had been that the death-rate of the city had appeared to be during the last few years 1·5 per 1000 higher than it ought to be.

St. Mungo's College.

At the annual meeting of this institution, held last Monday, it was stated that 100 students had attended the medical classes alone. Referring to the subject of affiliation to the University, the Principal pointed out the absolute necessity of placing the College on a firm foundation financially. Some progress had been made in securing endowment; of the sum of £20,000 aimed at, already £7000 had been subscribed.

Dr. E. Duncan on Plumbers.

In a lecture delivered recently on "The Sanitary Aspects of the Plumber's Work," Dr. Duncan summed up the results of his inquiries as follows:—"(1) Plumbers are not more liable than other persons to the class of zymotic diseases usually supposed to arise from sewage emanations; (2) that, although they do not suffer from typhoid fever or diphtheria, they do not suffer from minor ailments, such as sickness, vomiting, diarrhœa, and sore-throat, in consequence of exposure to offensive emanations from choked drains and soil-pipes; (3) that plumbers in Glasgow, like their brethren elsewhere, suffer to a considerable extent from the toxic effects of lead." In discussing some of the dangers to which plumbers are exposed in dealing with drains, Dr. Duncan observed that "neither decomposing typhoid excreta nor decomposing sputum, whether diphtheritic or tubercular, can give rise to any more noxious gas than any other piece of decomposing organic matter. There is, in fact, no gas in a sewer that you may not find outside of it. The air of a sewer, when it is properly ventilated, is much better from the chemical point of view than the air of crowded churches and schools, or even than the air of the houses in which one-half of the population of Glasgow lives."

Samaritan Hospital.

The fifth annual meeting of subscribers to this hospital was held on Tuesday last. From the report it seems that the number of patients during the past year was 635. Of these, sixty were in-door patients, 575 out-door. On the in-door patients sixty-two surgical operations were performed; in the out-door department there were 127 minor operations. Two patients died in hospital during the year. The financial statement was fairly satisfactory. The bazaar in aid of the building fund had yielded £5300; a sum of about £2000 is needed to complete the fund.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

DUBLIN.

Royal College of Surgeons.

AN election for a member of Council in the room of Mr. Thomson, resigned, took place on Tuesday, when Mr. Myles, surgeon to the Richmond Hospital, and Professor of Pathology R.C.S., was elected by a majority of votes. The annual elections of examiners for the ensuing year will probably take place next week, and for the vacancies in anatomy and surgery a very large number of candidates will compete.

Royal University of Ireland.

During 1890 the total number of candidates for the various academical examinations was 2845, as compared with 2970 in 1889, or a decrease of 125. The absentee candidates were less than in the preceding year, while the number who passed the several examinations was greater both absolutely and relatively, being 1803 in 1890 and 1625 in 1889.

Suicide from Phosphorus.

A lad aged nineteen died in Mercer's Hospital last week from phosphorus poisoning, self-administered. The deceased, who was subject to epileptic fits, took the poison while in a state of temporary insanity, and a verdict to this effect has been recorded by a coroner's jury.

Criminal Statistics for Dublin.

The total number of indictable offences committed within the Dublin district last year was 2465, against 3067 in 1889, or a decrease of 602. The charges of drunkenness not combined with other offences numbered 11,319, against 11,144 in the year preceding. Of the 27,069 persons arrested by the police, 283 were under 10 years of age, 491 under 15, 2431 under 20, 4897 under 25, 5028 under 30, while 985 were 60 years and upwards. These returns indicate an increase of

juvenile crime, while the large number of arrests for drunkenness is also a serious factor in the statistics for 1890.

Health of Dublin during March.

As compared with February, there were slight increases in the mortality from whooping-cough, diphtheria, and typhoid fever; but in both months the deaths from zymotic diseases numbered the same—viz., 31.

Death of a Medical Coroner.

Dr. Thomas J. M'Grath, coroner for the East and South Divisions of Tyrone, died on Tuesday, April 28th, from an overdose of a narcotic.

The Bishop of Down and Connor, president of the Royal Irish Academy, has given £500 towards the expense of publishing the "Book of Armagh."

An election for a visiting surgeon to Jervis-street Hospital will take place on Thursday, the 7th inst.

The Irish Cyclists' Association will hold a meeting on May 23rd, in aid of the funds of the Dublin hospitals.

Surgeon-General Thomas Farrant, A.M.S., was last week sworn in as a Justice of the Peace for the County Cork.

Dublin, April 28th.

BELFAST.

Professor Gairdner in Belfast.

At a meeting of the Ulster Medical Society, held in the Museum on Wednesday, April 22nd (the President, Dr. Dempsey, in the chair), Professor Gairdner, who had been invited by the Council, delivered an address on "Remedies, New and Old; Errors and Fallacies; with Suggestions for the Improvement of Therapeutic Methods." Having thanked the members for the honour they had paid him, and having complimented Dr. Whitla, the new professor of Materia Medica, as being the right man in the right place, Dr. Gairdner pointed out how few of them had the means of testing thoroughly any one great therapeutic advance. He declared that to be compelled to undertake personally a comparative investigation of any one of the scores of new claimants along certain well-understood lines of progress would more than exhaust the resources he had at disposal as a teacher and hospital physician in any reasonably limited period. Hence he advocated the coöperation of medical men for purposes of unbiased and independent judgment in regard to new remedies. In describing the errors and fallacies attaching to the new remedies, and their application to disease, it would not appear to them surprising or incongruous if he attempted to point a moral in a few instances from some of the older ones. He then referred to the chequered history in the past of mercury and antimony. In reference to the newer remedies, he was afraid, instead of diminishing, they were rather adding to the difficulties of medical men. He did not think they could possibly overtake the flow of new remedies. Dr. Gairdner then referred to Koch's new treatment for tuberculosis, saying that, whatever judgment might be ultimately arrived at on the matter, few of them would be disposed to deny that they were now in the very trough of a wave of reaction, or rather discouragement, from the hopes and expectations entertained in November last. Criticising the cases recently reported from Berlin, he said the results were less favourable than those obtained twenty years ago in the Brompton Consumption Hospital. He advocated the principle of scientific coöperation for the investigation of new remedies. A therapeutic committee sitting in London, or a multitude of such committees dispersed over the country, would be an education in itself for the persons concerned in it, which could not fail sooner or later to leaven the entire profession with a new kind of fellow feeling, and also a sense of responsibility, for the fate of new remedies which was at present greatly lacking with many of them. In conclusion, Dr. Gairdner asked if they—somewhat upon the lines of his discourse—could do anything towards initiating or devising a better way of dealing with new remedies. Dr. Cuming, Professor of Medicine, Queen's College, Belfast, in moving a hearty vote of thanks to Dr. Gairdner, spoke in the highest terms of the address, but said that personally he was not so sanguine as the professor seemed to be as to the advantages to be derived from coöperative research in reference to the value of new drugs. The vote of thanks was seconded by Dr. Lindsay, and passed most cordially. In the evening Dr. Gairdner was entertained at dinner in Thompson's Restaurant by the Ulster Medical Society. Dr. Dempsey presided, and there were over seventy members of the profession present, in addition to the Mayor of Belfast and the President of Queen's College. Dr. Dempsey proposed "The health of Our Guest, Dr. Gairdner," who, after replying, gave the toast, "Queen's College and Belfast Medical School," to which Dr. Hamilton (President) and Professor Cuming replied. Professor Dill proposed "The City of Belfast," and the Mayor replied. The health of the President of the Ulster Medical Society was proposed by Dr. Whitaker, medical officer of health for Belfast, and Dr. Dempsey responded. An admirable programme of music was excellently rendered. Too much praise cannot be given to Dr. McCaw, secretary of the Ulster Medical Society, for the great trouble and pains he took to make the dinner so successful.

The Royal Hospital.

I understand the following bequests have been left to the Royal Hospital: £500 from Lady Johnston and £1000 from Mr. Howard and Mr. Garrett Campbell, being the amount received by them as trustees of the will of the late Henry Campbell, which trusteeship they have now resigned.

PARIS.

(FROM OUR OWN CORRESPONDENTS.)

Cæsarean Section twice successful in the same subject.

AT the last meeting of the Academy of Medicine, M. Crimail of Pontoise recorded the somewhat rare occurrence of the successful performance twice running of Cæsarean section on the same patient. The woman was a dwarf twenty-four years old, whose pelvis, while it bore no evidence of rickets, was, as might be imagined, very much contracted. Her first pregnancy took place in 1888, when she was subjected to the first operation, and on its successful issue she was warned as to the consequences of future pregnancies. Notwithstanding this, she again became pregnant, and in February of this year it was found necessary to subject her once more to this formidable procedure. On this occasion, however, M. Crimail, with a view to preventing future pregnancy, ligatured the Fallopian tubes in two places, and divided them between the ligatures. She made an excellent recovery. It may be mentioned that the sutures were composed of carbolised silk, and that the dressings consisted of iodoform dusted on the wound, and the whole covered with iodoform gauze and cotton wool impregnated with the same antiseptic. It is interesting, too, to add that both the infants thus brought into the world survived, and are perfectly well.

Illegal Practice of Pharmacy by a Sister of Charity.

The Society of Pharmaciens of the Lyons and Rhone districts recently instituted a curious indictment against a Sister of Charity of illegally practising pharmacy. The Sister, it appears, had a remedy for a rather common complaint—viz., anæmia,—and this nostrum she was in the habit of selling for money amongst her friends, acquaintances, and others. The pharmaciens, considering this an encroachment upon their privileges, objected, and instituted legal proceedings. The Court of First Instance took a lenient view of the affair, and declined to condemn the amateur pharmacien; but the Society insisting on an appeal, the higher Court responded by fining the Sister a small sum for illegal practice, and cautioning her as to her future conduct.

A Step in Advance.

Many things are, no doubt, managed better in France than on your side of the Channel, but by no means all. It is true we escape income-tax, but the imposition of this tax cannot be said to contribute to shutting out from our dwellings the light and breath of heaven, and the consequent respiration of a vitiated atmosphere. The tax on doors and windows which is levied in this otherwise enlightened country may, on the other hand, be fairly held to have this effect, especially in country and poor districts where all possible thrift and economy are practised. The Council General of the Gironde is evidently at last of this opinion, for it has voted that all taxes on doors and windows should be suppressed as contrary to the due observance of the laws of hygiene.

Correction.—In the paragraph headed "Artificial Quinine" in my letter last week an error has crept in which it is de-

sirable should receive correction. The sentence commencing on the ninth line of that paragraph should run thus: "The base cuprein contained in the shrub Remijia pedunculata, growing in Brazil, is treated with sodium, then the combination thus obtained is *further treated with* chloride of methyl. The product is quinine."

Paris, April 28th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

Professor Koch.

IT will be remembered that the Minister of Education and Medical Affairs freed Professor Koch from his professional duties during the past winter session, to enable him to devote his undivided attention to the study of tuberculosis. The private lecturer, Dr. von Esmarch, a son of the famous surgeon of Kiel, lectured on hygiene in his stead, and conducted the practical work in the Hygienic Institute. In his speech in the Prussian House of Deputies, the Minister, Herr von Gossler, stated that this arrangement was only temporary, and that the chair of hygiene should afterwards be entrusted to a new ordinary professor, in order to allow Professor Koch to devote himself exclusively to his new institute for the study of infectious diseases. This appointment, however, has not yet been made, owing perhaps to Herr von Gossler's resignation, and Dr. von Esmarch will take Koch's place this session also both in the University and in the Hygienic Institute. The usual lectures on bacteriology, however, will not be delivered.

Death of Dr. Julius Jensen.

The eminent alienist, Dr. Julius Jensen, died here last Friday, aged forty-nine. He was head physician of the East Prussian asylum of Allenberg for about ten years, and of the great Berlin asylum at Dalldorf for about a year. The most important of his writings are—a treatise on the furrows and convolutions of the human cerebral hemispheres; investigations into the relations between the cerebrum and mental derangement; a report on 453 brains of insane East Prussians divided and weighed by Meynert's method; reports of remarkable observations made at the necropsies of insane persons, of a case of arrested development of the tonic sphere, of defects in the parietal and frontal lobes without obvious disturbance of motion during life, of prenatal scars in the right cerebral hemisphere, of a microcephalous skull, &c., an essay on prognosis in mental disease, an answer to the question, "What is the meaning of the word insane?" an article on insanity with rigidity of muscles in Ersch and Gruber's Encyclopædia, and two popular lectures on "Dreaming and Thinking" and on "Doing and Acting."

German Death-rates in the Week ending April 11th.

Aix-la-Chapelle, 28·4; Altona, 22·2; Barmen, 19; Berlin, 18·6; Bremen, 22·8; Breslau, 30·0; Chemnitz, 28·5; Cologne, 22·3; Dantzic, 21·9; Dresden, 23·4; Dusseldorf, 23·2; Elberfeld, 20·3; Frankfort-on-the-Maine, 19·6; Hamburg, with its suburbs, 19·5; Hanover, 21·3; Königsberg, 20·4; Krefeld, 23·8; Leipsic, 16·7; Magdeburg, 24·1; Munich, 29·0; Nurnberg, 19·3; Stettin, 24·2; Strasburg, 28·7; Stuttgart, 21·4.

Berlin, April 28th.

CANADA.

(FROM OUR OWN CORRESPONDENT.)

Montreal Medical Notes.

AT the annual Convocation for conferring degrees, held April 1st, the M.D. C M. degree was conferred upon forty-eight graduates. Of this number nineteen were residents of the province of Ontario. The number in attendance in the medical department was 260. The Convocation of Bishop's College Medical School was held on March 31st.

University of Toronto.

The examinations in the medical department commenced on April 1st. During the session the classes have been well attended, the register showing: Fourth-year, 65; third-year, 60; second-year, 81; first-year, 78; being a total of 284. The sum of $1200 has been offered by seven of the city banks as endowment of a scholarship in the first year in the department of political science. Rebuilding operations are steadily progressing, the roofing-in of the main portion being nearly completed, while the site of the old convocation hall presents evidence of the stonemasons' work in that direction.

Medical M.P.'s.

Already seventeen doctors have been gazetted members of the House of Commons—certainly a useful number to see that the enactments of that body are of a "healthful nature."

Asylums of Ontario.

The annual report of the Inspector of the Lunatic and Idiot Asylums of the province has just been issued. At the close of the official year—Sept. 30th, 1890—there were upon the books 3318 patients, against 3181 upon the same date last year. The average number in residence during the year was 3266. Comparing this with the numbers given in the first report, 1877, there has been a yearly increase of 103. Of the 669 admissions during the year 256 were of other than Canadian birth.

Medical Health Officer for Toronto.

After months of delay the post of health officer for the city has been filled by the appointment of Dr. H. Allen.

The Lakeside Home.

Through the liberality of Mr. J. Ross Robinson this summer home for invalid children is to be enlarged to accommodate 250, at a cost of $10,000, thus providing for the many applicants who, for want of space, have previously been refused.

Medical Missionary Magazine.

Not satisfied with supporting a medical missionary in Corea, the missionary board of the Medical Students' Young Men's Christian Association of Toronto decided to publish a small magazine, *The Medical Missionary*, the first number of which appeared last month. It is to be hoped it may be the means of arousing sympathy and of helping this commendable work.

April 4th.

ROYAL COLLEGE OF PHYSICIANS.

A COMITIA of the College was held on Thursday last, Sir Andrew Clark, Bart, President, in the chair. At this meeting nine gentlemen were elected Fellows of the College and nine were admitted to the Membership. The lists will be found in another column. Licences were granted to the ninety-seven successful candidates.

A communication was received from the Manchester and Salford Sanitary Association suggesting that the College should join in the attempt to put the practice of hypnotism under some restrictions similar to those which affect the practice of vivisection. It was decided that the letter should lie upon the table.

The President being desirous of entertaining at dinner representatives of the International Congress on Hygiene and others in August next, the Fellows resolved to sanction the use of the College for that purpose.

After some discussion, it was resolved that the course of medical study required for the Licence of the College should be extended to a period of five years.

The report of the Committee on the Midwives' Registration Bill was then considered, and although the Bill has been withdrawn, it was thought well to direct that the report should be printed and sent to members of the House of Commons, to the Local Government Board, and to the General Medical Council.

It was announced that Dr. Francis Warner had been selected as Milroy Lecturer.

Reports from the Finance Committee, the Committee of Management, and the Laboratories Committee were received and adopted.

THE DEPUTY-CORONERSHIP FOR ANGLESEY, vacant by the death of Mr. J. Cemlyn Jones, solicitor, Bangor, has just been filled by Mr. R. Jones Roberts, the coroner, who has appointed Mr. Roland Philip Williams, L.R.C.P. Edin., Holyhead, his deputy. Mr. Williams is a member for Holyhead on the Anglesey County Council, a member of the standing joint committee, and has just been re-elected a member of the Holyhead board of guardians.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen have been elected Fellows of the College:—

William Allen Sturge, M.D. Lond.; Alfred Henry Carter, M.D. Lond.; Richard Grainger Hebb, M.D. Camb.; Sidney Philip Phillips, M.D. Lond.; John James Pringle, M.B. Edin.; William Pasteur, M.D. Lond.; Sidney Harris Cox Martin, M.D. Lond.; Archibald Edw. Garrod, M.D. Oxon.; Samuel Herbert Habershon, M.D. Camb.

The following gentlemen have been admitted to the Membership:—

William Gordon, M.B. Camb; George Redmayne Murray, M.B. Camb.; Bedford Pierce, M.D. Lond.; Samuel Otway Lewis Potter, M.D. Jefferson Coll.; James Taylor Robb, M.D. Aber.; Gustave Isidore Schorstein, M.B. Oxon.; W. Knowsley Sibley, M.B. Camb.; Ernest Henry Starling, M.D. Lond.; Dawson Fyers Duckworth Turner, M.D. Edin.

UNIVERSITY OF DURHAM: FACULTY OF MEDICINE. At the Convocation held on April 28th the following were recommended for the degree of Doctor in Medicine for Practitioners of fifteen years' standing:—

Norman Bruce Elliot, F.R.C.S. Eng.; John Hamilton, F.R.C.S., L.R.C.P. Edin., L.F.P.S. Glasg.; Fredk. K. Marsh, L.R.C.P. Edin., L.F.P.S. Glasg.; Willoughby Furner, F.R.C.S. Eng.

The following were recommended for the degree of M.D.:—

George Berwick, M.B., B.S. Durh.; Henry Luther Ewens, M.B., B.S. Durh., M.R.C.S., L.R.C.P. Lond.; Alfred John Gregory, M.B., B.S. Durh., M.R.C.S., L.S.A.; Francis Hy. Mead, M.B., B.S. Durh., M.R.C.S.; George Newstead, M.B., B.S. Durh.; Charles Patrick O'Connor, M.B. Durh., M.R.C.S.; Nathan Raw, M.B., B.S., L.S.Sc. Durh.; Louis Robinson, M.B. Durh., M.R.C.S., L.S.A.; Jas. Scott Tew, M.B., B.S. Durh., M.R.C.S., L.S.A., D.P.H. Camb.

The following were recommended for the degree of Bachelor in Medicine (M.B.):—

Honours (Second Class).—Edward Cecil Willcox, College of Medicine, Newcastle-on-Tyne.

Pass-list.—Walter Reyner Brunton and Wm. Arthur Rudd, London Hospital; John Clay, Alfred Cox, Arthur Jas. Dale, Thomas Hartley, Wm. Cyril Haswell, John Dobson Wardale, Algernon Edwd. Luke Wear, Robt. Anthony Welsh, College of Medicine, Newcastle-on-Tyne; Henry Wm. James Cook, Charing-cross Hospital; Ramsay Lamy Daly, Chas. Forsyth, and Arthur John Gardner, M.R.C.S., L.R.C.P., Yorkshire College, Leeds; Robert Dunmore Hotchkis, M.A., St. Bartholomew's Hospital; Joseph Wood, Owens College, Manchester.

The following were recommended for the degree of Bachelor in Surgery (B.S.):—

Percy Rutherford Adkins, M.B. Durh., St. Thomas's Hospital; Frederick Carden Brodie, M.B. Durh., M.R.C.S., L.R.C.P., L.S.A., Middlesex Hospital; Henry Wm. James Cook, Charing-cross Hospital; John Clay, Alfred Cox, Arthur James Dale, William Cyril Haswell, George Grahamsley Howitt, M.B. Durh., John Dobson Wardale, Algernon Edward Luke Wear, Robt. Anthony Welsh, and Edward Cecil Willcox, College of Medicine, Newcastle-on-Tyne; Ramsay Lamy Daly and Chas. Forsyth, Yorkshire College, Leeds; Harry Fowler, M.B. Durh., Owens College, Manchester; Robt. Dunmore Hotchkis, St. Bartholomew's Hospital; and Joseph Wood, Owens College, Manchester.

ROYAL UNIVERSITY OF IRELAND.—The following have passed the third examination in Medicine of the University:—

Upper Pass Division.—Michael Boyle, Alexander Jamison, George Johnston, Robert Leatham, John McGee, and John C. Rowan. (The above may present themselves for the further examination for Honours.)

Pass Division.—James Aughlin, Richard Baile, James F. Barrett, Robert M. Beatty, Eliza G. Bell, Francis H. Clements, Michael J. B. Costelloe, Richard B. Crosbie, Thomas H. Delaney, Hugh J. Dickey, Victor G. Fielden, Hugh Fisher, James Graham, Richard Heard, William H. Heard, Benjamin Hosford, Thomas Howard, John Lane, William Lyle, William T. Meagher, John O'Donnell, Thos. B. Pedlow, Laurence Rowan, James Stevenson, Edwin Topping, Edward T. Vint, and John J. Yorke.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS IN IRELAND: CONJOINT SCHEME.—The following have passed the Third Professional Examination:—

J. Armstrong, E. H. Beaman, H. Flynn, D. H. Foley, F. W. Foott, P. J. Garland, F. J. Greeves, E. W. Guinness, L. A. Jameson, W. S. Kane, G. Q. Lennane, E. A. Malcolmson, J. S. Proctor, G. Russell, and J. A. Thornhill.

The undernamed additional candidates have been allowed the Second Professional Examination—viz:

C. R. Chichester and T. H. Law Hewitt.

SOCIETY OF APOTHECARIES OF LONDON.—The following passed the first examination in Chemistry, Materia Medica, Botany, and Pharmacy during April:—

R. Hall, University of Durham.

The following passed in the subjects indicated:—

Materia Medica, Botany, and Pharmacy.—H. K. C. Delamotte, Edinburgh; J. Edwards, London Hospital; T. Hopps, Manchester, Owens College; and G. H. Nowell, B.A., Cambridge and Westminster Hospital.

Materia Medica and Botany.—F. R. Rouse, University College.

The following passed the second examination in the subjects indicated:—

Anatomy and Physiology.—D. Berne, Sydney University; P. H. Best, B.A., Cambridge and University College; B. H. Carpenter, St. Bartholomew's Hospital; C. D. Garrett, Westminster Hospital; J. Garrett, St. Mary's Hospital; E. L. Greene, Royal Free Hospital; H. Herbert, London Hospital; E. P. Hewitt, St. Mary's Hospital; F. Kennedy, Edinburgh University; C. A. Marrett, Charing-cross Hospital; H. J. Neatby, Leeds, Yorkshire College; J. H. Nowell, B.A., Cambridge and Westminster Hospital; L. C. L. Raymond, Charing-cross Hospital; W. J. Woods, St. Bartholomew's Hospital; and R. M. Wright, Sheffield.

Anatomy.—G. C. Schultz, St. Mary's Hospital; H. C. Venis, Calcutta and St. Mary's Hospital; and J. F. W. Waters, Middlesex Hospital.

Physiology.—G. E. Douglas, St. Mary's Hospital; W. R. Fisher, London Hospital; J. M. Gleeson, Dublin and London Hospital; J. Joule, London Hospital; S. Langton, St. Mary's Hospital; G. Lowsley, St. Bartholomew's Hospital; T. W. O'Reilly, St. Thomas's Hospital; and C. C. Pratt, St. George's Hospital.

Surgery.—W. Anderson, M.D., California University, San Francisco; F. J. A. Baldwin, London Hospital; J. F. Brown, B.A., M.D., C.M., Toronto; R. J. Colmer, London Hospital; H. B. Falconer, King's College; A. F. Gervis, St. Thomas's Hospital; M. J. Houghton, Birmingham, Queen's College; W. H. Kershaw, London Hospital; G. F. Knipe, Liverpool, University College; L. J. Minter, King's College; W. H. Savery, Sheffield; H. N. A. Taylor, B.A., Cambridge University and Norfolk Hospital; C. F. Warren, St. Mary's Hospital; and E. C. Wimberley, Birmingham, Queen's College.

Medicine, Forensic Medicine, and Midwifery.—C. D. Holmes, Liverpool, University College; H. Knevitt, London Hospital; A. W. Read, St. George's Hospital; E. M. Rooke, Guy's Hospital; A. Richardson, Edinburgh University; H. de V. Stacpoole, St. Mary's Hospital; P. Sharp, King's College; G. R. Stilwell, St. Thomas's Hospital; H. N. A. Taylor, B.A., Cambridge University and Norfolk Hospital; W. A. Williams, L.M.S., Calcutta and Middlesex Hospital; and F. C. Wood, L.S.A., London Hospital.

Medicine and Forensic Medicine.—R. S. Freeland, L.R.C.P., M.R.C.S., Guy's Hospital; and G. F. Knipe, Liverpool, University College.

Medicine and Midwifery.—R. Jackson, London Hospital; C. P. Morgan, Guy's Hospital; B. F. Parish, St. Mary's Hospital; and H. J. Thomas, Bristol Medical School and Guy's Hospital.

Forensic Medicine.—E. A. Humphreys, Manchester, Owens College.

Midwifery.—S. H. R. De Groot, King's College; and A. G. Keeling, St. Thomas's Hospital.

The following were granted the diploma of the Society, qualifying for registration and entitling them to practise Surgery, Medicine, and Midwifery:—

Messrs. Colmer, Holmes, Houghton, Knevitt, Minter, Sharp, Stacpoole, Stilwell, Taylor, Wimberley, and Wood.

DUBLIN HOSPITAL FLOWER MISSION.—Last year 18,580 little bouquets, besides lavender bags, were distributed to inmates of the Dublin Hospitals. The present session will last from April 28th until the end of September.

EVELINA HOSPITAL FOR SICK CHILDREN.—A meeting of the governors and subscribers of this institution was held at the hospital, Southwark Bridge-road, on the 22nd ult. Baron F. de Rothschild, M.P., the president, occupied the chair. The charity is surrounded by a dense population, and no other hospital south of the Thames receives exclusively the children of the poor. No paying patients are admitted. The sixty cots in the wards are nearly always occupied, and the average daily attendance of out-patients is about 100. More accommodation is urgently needed, and the president has generously purchased some adjoining property, the site of which it is intended to utilise for the erection of a new wing. Meantime an appeal is made for additional pecuniary support, since for the past five years the invested capital has been encroached upon to the extent of £1000 per annum to meet current expenses.

UNIVERSITY OF LONDON.—The following gentlemen were on the 29th ult. elected Examiners in Medical subjects:—Practice of Medicine: J. F. Payne, M.D., B.Sc., and Prof. F. T. Roberts, M.D., B.Sc. Surgery: Prof. Marcus Beck, M.S., M.B., and H. G. Howse, M.S., M.B. Anatomy: R. Clement Lucas, M.B., B.S., and Prof. Alexander Macalister, M.D., M.A., F.R.S. Physiology: Prof. W. D. Halliburton, M.D., B.Sc., and J. N. Langley, M.A., F.R.S. Obstetric Medicine: C. J. Cullingworth, M.D., and Alfred L. Galabin, M.D., M.A. Materia Medica and Pharmaceutical Chemistry: Frederick Taylor, M.D., and Prof. N. I. C. Tirard, M.D. Forensic Medicine: J. D. Mann, M.D., and Prof. G. V. Poore, M.D., B.S. Chemistry: Prof. H. E. Armstrong, Ph.D., F.R.S., and Prof. W. A. Tilden, D.Sc., F.R.S. Botany and Vegetable Physiology: Prof. Daniel Oliver, F.R.S., and Prof. H. M. Ward, M.A., F.R.S. Comparative Anatomy and Zoology: Sydney J. Hickson, Esq., D.Sc., M.A., and Adam Sedgwick, Esq., M.A., F.R.S.

HAMPTON WICK.—Dr. Langdon Down, J.P., has been appointed by the Middlesex County Council one of the two delegates to represent that body at the International Congress on Hygiene.

THE freedom of the Plumbers' Company has been presented to Dr. Farquharson, M.P., for the special services rendered by him for many years past to the cause of sanitation.

BIRMINGHAM WATER-SUPPLY.—The Birmingham City Council has unanimously adopted a scheme for obtaining a new water-supply from the Elan and Claerwin rivers, in Mid-Wales, these rivers being tributaries of the Wye.

YORKSHIRE SANITARY ASSOCIATION.—There is shortly to be opened in Leeds a branch of the Yorkshire Sanitary Association, one of whose chief objects is to secure to householders an easy and inexpensive means of ascertaining the general sanitary condition of their dwellings, and practically of ensuring themselves against the risks of defective sanitation.

FATAL CHLORODYNE DRINKING.—At an inquest held on Monday at Monkwearmouth on the body of a woman aged fifty-three, who died at her residence on the previous day, the evidence was to the effect that the deceased had taken to excessive drinking, and on Saturday she purchased at a chemist's shop a pennyworth of chlorodyne, being at the same time informed that she should not take more than ten drops. She was afterwards discovered lying unconscious in her house, and subsequently died. The medical evidence attributed death to coma, the effect of an overdose of chlorodyne.

UNIVERSITY COLLEGE HOSPITAL.—On Tuesday, the festival dinner in aid of this charity was held at the Hôtel Métropole, Lord Reay presiding. The chairman, in proposing "Prosperity to the Hospital," urged the claims of the institution to liberal public support. A debt existed to the extent of £8000. The Hospital rebuilding fund had remained stationary. It amounted to about £12,000. The annual reliable income was only £6000, while the expenditure approached £20,000 During the evening contributions were announced (including £500 from Mr. J. T. Chance for the rebuilding fund) to just upon £2000.

THE CITY OF LONDON TRUSS SOCIETY.—In the absence of the Lord Mayor, the Rev. Prebendary Whittington occupied the chair, supported by the Sheriffs, at the eighty-fourth annual festival of the members of the Society, held on Tuesday at the Albion Tavern, Aldersgate-street. In proposing the toast, "Prosperity to the City of London Truss Society," the chairman remarked on its long existence (founded in 1807) and the ever-growing augmentation in the annual demands upon it; adding that one at least out of thirteen of the general working population was afflicted with hernia. The subscriptions were only sufficient to discharge the cost of the appliances supplied, and the expenses of management of the charity had to be met by the interest received from the capital invested. Subscriptions were announced amounting to £800.

FOOTBALL CASUALTIES.—During a recent football match (Askam against Rochdale St. Clements) a player sustained a simple fracture of the collar-bone —Whilst playing football in a park near Blochairn Steel Works, Glasgow, last week, a player slipped and fell, sustaining a fracture of the right leg.—In an Association football match played at Heywood on the 25th ult. between the two principal town clubs, three players were badly injured by kicks.—A young man aged twenty-one, while playing on Saturday in a match at Gravelhole, near Rochdale, received injuries to his spine and head, from which he died the following day.—A youth, during a game at football on Poundbury, Dorchester, fell and badly sprained his ankle —In a football match at Grona, co. Tipperary, a young man received a kick in the abdomen, and died shortly afterwards.—As the semi-final tie of the Fylde Junior Cup was recently being played between Blackpool Olympic and Marton, at Raikes Hall, a player had his knee badly twisted.—A young man aged twenty-four has died in the Southport Infirmary from injuries lately received in a football match at Southport. He sustained a compound fracture of the left arm; lockjaw supervened, from which he died.

MEDICAL MAGISTRATES.—Arthur Mussen, M.D., of Glenavy, Lisburn, has been placed on the Commission of the Peace for the county of Antrim.—At the adjourned quarter sessions, held at Maidstone on the 15th ult., Charles Lovegrove, M.D., Hythe, qualified as a justice of the peace for the county of Kent.

MRS. HODGSON BURNETT, authoress of "Little Lord Fauntleroy," has recently endowed a cot at the St. Monica Hospital for Children, Brondesbury Park, in memory of her little boy Lionel, who died on the Riviera of consumption during the last winter, and whose pretty little sayings and doings suggested the Lord Fauntleroy which had such marked success.

SALE OF DISEASED MEAT.—An important decision to meat salesmen was given last week in the case of Barlow *v.* Terrett. This was an appeal against a decision by a magistrate who had convicted appellant of exposing bad meat for sale in the Central Meat Market. The court, consisting of Justices Day and Lawrance, unanimously decided that, much to their regret, they were against the conviction, inasmuch as, the meat having been deposited, and not exposed by hanging up, the conviction was bad. The conviction was accordingly set aside without costs.

ILKLEY HOSPITAL AND CONVALESCENT HOME.—The annual report for 1890 states that the hospital was opened last year towards the end of March, and had been closed on the 7th of November, a period of thirty-two weeks, during twenty-eight of which it had been full The number of admissions, including renewals, was 1122, the largest reached in one year. Since the erection of the hospital in 1861 the total number of admissions and renewals was 20,964 The cash statement showed an adverse balance of £116, to be carried forward to the current year.

MANCHESTER AND SALFORD SANITARY ASSOCIATION.—Dr. Ransome presided at a meeting of the committee recently. The subcommittee appointed to consider the desirability of placing the practice of hypnotism under legislative control reported that they had obtained through the Foreign Office information as to the attitude of various Continental Governments towards the question, and the committee are in communication with the various Colleges of Physicians and Surgeons in the kingdom with the view of securing their coöperation in any action that may be agreed upon. The subcommittee appointed to consider the resuscitation, under an independent organisation, of the work of house inspection, reported favourably on the proposal. In reference to the abatement of noxious vapours, it is intended to convene a public meeting to obtain an expression of opinion by the ratepayers on the proposed reduction of the charges for gas within the city to cost price, the object being to encourage its use instead of coal for heating and other purposes, to obviate the present pollution of the atmosphere.

PRESENTATIONS.—Mr. C. F. M. Althorp, L.R.C.P. Lond., M.R.C.S., lately house surgeon, and recently appointed honorary assistant surgeon to the Bradford Infirmary, and who purposes to commence practice on his own account, has been presented by the nursing staff and servants of the institution with a walnut writing cabinet from the nursing staff, a table gong from the servants, and a china afternoon tea service from the patients in the Jenny Philipp and Macturk wards, as tokens of esteem.—Dr. J. Highet of Workington, Cumberland, has been presented by the members of the Workington Ambulance Class, in connexion with the London and North-Western Railway Ambulance Corps, with a handsome walking stick as a mark of appreciation of his services and instruction in first aid to the injured.—Dr. F. R Russell of Guildford has been presented by the members of the Guildford Ambulance Class, in connexion with the County Police Force, with a silver inkstand for his instruction in ambulance work. — Mr. G. H. Patterson, L.R.C.P. Lond., M.R.C.S., of Dalton-in-Furness, has been presented by the members of the Lindal Ambulance Classes with a timepiece and an aneroid barometer as an acknowledgment of his able lectures to them on ambulance work.—Dr. F. C. MacNalty, of Greenodd, Ulverston, has been presented with a handsome dining-room clock by the members of the Crake Valley St. John Ambulance Classes in appreciation of his instructions to them on first aid.

DEEP-SEA FISHERMEN.—The Corporation of the City of London has made a grant of 100 guineas to the Mission to Deep-sea Fishermen.

THE SWEATING SYSTEM IN NEW YORK.—Attention is directed in the annual report of the New York State Board of Mediation and Arbitration to the iniquitous hours of labour imposed upon shirt-makers and other cloth-workers in New York City. Certain foreigners, who can speak but little English, are reported to be "labouring like slaves" for twelve and eighteen hours a day. They live and work in wretched crowded tenements, destitute of proper light or ventilation, and live in squalor, forming an exact parallel to the method adopted by the Jew sweaters in England.

SUNDERLAND CORPORATION AND "SWEATING."—The Sunderland Corporation has, on the recommendation of their Watch Committee, decided, after very lengthy discussion, that in future all persons tendering for corporation contracts shall be expected to pay to the workmen whom they may engage in carrying out such contracts the recognised scale of wages current in the district in which the work is done. The recommendation was the result of an agitation by the Sunderland Trades Council, who alleged that the police clothing had been made in London on the "sweating" system.

ROYAL BERKSHIRE HOSPITAL, READING.—The annual report for 1890 is satisfactory in respect to its augmented utility and the large work accomplished during the year. The number of patients treated was 4778, and the resources and accommodation had alike been severely taxed. The proposed enlargement of the hospital by building additional wards had for the present been postponed. The financial result of the year's work was a deficit of £437 13*s.* 3*d.* The private nurses' establishment continued to more than pay its expenses. A sum of £300 was added to the invested capital in 1889, and the profits of 1890 will be sufficient to invest about the same amount this year.

BURIAL REFORM.—The Archbishop of York has written as follows to the Dean of York, chairman of the Executive Committee of the Church of England Burial, Funeral, and Mourning Reform Association:—"I have much pleasure in accepting the office of Joint President, with the Archbishop of Canterbury, of the Church of England Funeral Reform Association. I have already on previous occasions expressed my entire sympathy with its objects, and I am glad of this opportunity of doing so again." The Duke of Westminster will preside at the thirteenth annual meeting of this Society in Grosvenor House, on Tuesday, June 2nd.

THE LONDON WATER-SUPPLY.—On Tuesday the Select Committee of the House of Commons appointed to deal with the London Water Bills met for the first time. The London Water Commission Bill, introduced by Sir Robert Fowler, the late Mr. T. C. Baring, and Sir John Ellis, to constitute a public authority to promote Bills in Parliament to improve the water-supply &c., came on for consideration. There are forty-six petitions against the measure. Counsel for the City Corporation and representatives of various companies having been heard, the chairman said the committee had come to the conclusion that no Bill could satisfactorily deal with the questions referred to this committee, which merely constituted a public authority to promote Bills in Parliament, so that the committee could not see their way to pass the preamble of the Bill.

MEDICAL NOTES IN PARLIAMENT.

Methylated Spirits Drinking.

In the House of Commons, on Tuesday last, in reply to Mr. O'Neill, the Chancellor of the Exchequer said: The Board of Inland Revenue intend to render methylated spirit sold by retail more nauseous in character. They also intend, when there is reason to believe that methylated spirit is being purchased from any retailer for potable purposes, to cause such retailer to keep a stock account, giving the date of sale and quantity sold on each occasion, together with the name and address of the purchaser, and, if any such purchaser be known to be using the methylated spirit as a beverage, the vendor will be warned that proceedings will be taken against him for recovery of the fine of £100 under Section 130 of the Spirits Act, 1880, if he continues to sell methylated spirit to the said purchaser. I can assure the hon. member that every possible precaution will be taken to put a stop to the practice.

Mortality in Lunatic Asylums.

Dr. Farquharson asked the Home Secretary whether it would be practicable for the Commissioners in Lunacy to append to future issues of their reports a table showing the causes of death of all lunatics dying in all lunatic asylums, public and private, in registered lunatic hospitals, and in workhouses in England and Wales.—Mr. Matthews: I am informed by the Lunacy Commissioners that no returns are made to them as to deaths of lunatics in workhouses, and they have no power to call for them. They have considered, and will again consider, whether they can, and how soon, insert tables showing the causes of death in lunatic asylums, registered hospitals, and licensed houses, but this would involve much additional clerical work, and the existing staff is already hard pressed owing to the great increase of work cast upon it by the operation of the Lunacy Act, 1890.

The British Institute of Preventive Medicine.

Major Rasch has given notice that on Thursday next he will ask Sir M. Hicks Beach whether a decision has yet been given by the Board of Trade on the application for a licence for the British Institute of Preventive Medicine, and, if so, whether he will state the form and conditions of the licence.

Tuberculosis.

In the House of Commons on Thursday, Sir Thomas Sutherland addressed a question to the President of the Local Government Board with reference to the Royal Commission appointed to inquire into the subject of tuberculosis in cattle.—Mr. Ritchie in the course of his reply stated that the Commissioners had been sitting since July last, and were now engaged in carrying out an exhaustive series of experiments, the results of which could not be determined for some months.

Quarantine Arrangements at Suez.

Mr. Conybeare asked the Under Secretary of State for India whether his attention had been called to the following statement in the public press, that, "at the sitting of the Committee of Public Health at Paris on April 21st, it was declared that cholera is increasing in Calcutta, the fact being shown by the arrival at Suez of a great number of ships liable to quarantine measures. Conformably, however, to the wishes of the English, who are in the majority upon the sanitary council, these vessels pass without sanitary measures being taken. One English ship from Calcutta was mentioned as having had eleven cases of cholera on board, ten of which had terminated fatally before she reached Colombo. On her arrival at Suez she only remained in the roadstead during the time necessary to make repairs." And, whether, if these matters are as stated, he will take steps to enforce a strict quarrantine at Suez.—Sir James Fergusson made the following reply on behalf of the Government: Any such statement would be inconsistent with fact, for by the last accounts the deaths from cholera at Calcutta were far below the quinquennial average. The case mentioned is evidently that of a ship which had eleven cases of cholera on board between Calcutta and Colombo. She then underwent nine days in quarantine, and was thoroughly disinfected. No further sickness occurred on board, and accordingly when she reached Suez, after a voyage of fourteen days, she was allowed to pass through the Canal in quarantine.

Experiments with Phthisical Sputum.

Mr. Samuel Smith asked the Home Secretary whether his attention had been drawn to the experiments with phthisical sputum reported by Mr. Watson Cheyne in the *British Medical Journal* of the 11th of April, involving the boring of holes into the knee-joints of living rabbits; and whether the Home Office possessed a report of such experiments; if so, did this report show whether Mr. Watson Cheyne held a certificate dispensing him from the use of anæsthetics in the performance of such experiments; whether the holes were bored into the legs of the animals while they were sensitive to pain; and how long their joints were allowed to inflame and swell through the action of the diseased material stated to have been injected.—The Home Secretary said he had seen the report of those experiments; they were made in the years 1887 and 1888, and a summary of them appeared in the Annual Report of the Inspector presented to Parliament for those years. It appeared that they were performed under certificate which authorised experiments without anæsthetics, and which was granted on the supposition that the experiments were simple inoculations. He was informed by the inspector that the great majority of the experiments were simple inoculations; but in any case where the operation was performed on the bone the animal was fully under chloroform.

THE METROPOLITAN HOSPITALS INQUIRY.

The Committee investigating the condition of Metropolitan Hospitals resumed on Monday, 27th inst.

Hospital for Women, Soho-square.

Mr. David Cannon, secretary of the hospital, was examined. He stated that the hospital contained sixty-six beds divided among fifteen wards, an arrangement which explained the apparently excessive expenditure per bed at this hospital. Small wards were much more expensive to work than large ones, and required more nurses proportionately to the number of patients. The balance sheet showed a grand total of expenditure, including the deficit for the previous year, of £8368, but the average annual expenditure amounted to £6800. They had managed to reduce the mortgages on their property from £18,300 to £10,800, and hoped next year to clear off the whole debt by means of legacies &c., and to occupy their own freehold. The annual subscriptions amounted to £15,000 on an average. They received assistance from railway companies, corporations, and, before the Charity Commissioners interfered, they used to get assistance from the parishes in the City. At present they considered themselves badly off in the matter of legacies. The senior medical officer was the only medical member of the Committee of Management, which meets once a month. The witness did not think that General Booth's scheme had interfered materially with the funds of the hospital. As a matter of fact, the donations had not fallen off.—By Lord Spencer: A large number of patients came from the East-end of London, and were mostly poor people. The hospital was founded because the general hospitals did not make any special provision for such cases at that time. Since the establishment of these special hospitals, the general hospitals had started wards for these special cases. Many qualified men came to the hospital to study, among whom were numbers of American graduates. They were not taught in the wards, but only in the out-patient rooms. The average number of such students was between twenty-five and thirty in the year.—By Lord Monkswell: Some of the beds were paid for, some were partly paid for, and others were free—twenty-six paying

beds and forty free, but in each case the attendance was precisely the same. The question of throwing two or three of the smaller wards into larger ones had not been considered during his tenure of office.—By Lord Lauderdale: The average number of beds occupied last year was fifty, and the average cost per bed was £2 2s. 6d. per week.—By the Chairman: No plan of the drains was kept in the office. If anything was out of order it would at once be reported to him. He looked upon himself as being responsible to the committee, and there was no special sanitary officer employed to inspect the buildings.

Miss Squier, the matron of the hospital, gave an account of the nursing arrangements of the hospital. They had four sisters, three staff nurses, ten ordinary probationers, and two paying probationers. They occasionally sent out nurses, but only on the recommendation of the doctors.

Mr. Richard T. Smith, M.D. Lond., M.R.C.P., saw no reason why members of the staff of the general hospital should not be on the staff of the special hospital. Special hospitals could with much advantage cooperate with the general hospitals. Notwithstanding the great advance that had been made by the general hospitals, he was of opinion that the necessity for some special hospitals was as great as ever, because there was difficulty in providing accommodation for students in the general hospital, and women objected to be examined by a great many medical students; therefore the number of students who could take a deep and personal interest in the cases was rather limited. His hospital limited the number of students taking an active part to four in one day, to some extent out of consideration to the patient, and also from want of space. Special provision would have to be made even in general hospitals for the performance of special gynæcological operations.—In reply to Lord Kimberley, the witness stated that though he had no objection to special operations being performed in general hospitals, he would except cases of abdominal surgery, which, in his opinion, should be done in separate buildings. As regards the study of disease, he thought special hospitals promoted science, and possibly led to new discoveries.—By Lord Thring: The witness personally would not object to women being admitted as students into this hospital.—Lord Thring: Doctors object to these hospitals because they injure the schools, and not because they injure the patient. They say special hospitals are bad because they prevent the acquisition of a knowledge of these particular diseases.—The Witness: Of course it takes away a certain number of patients from the general hospitals. With regard to the education of a medical man, the witness thought that no young man ought to study any speciality until he was thoroughly versed in general medicine.

Gordon Hospital for Fistula.

Captain Hincks, secretary of the hospital, said that the patients were admitted for the most part free, but many of them paid. There were only twenty-five out-patients daily. It was originally called the Western Hospital, and the name was changed by the committee to the Gordon Hospital. The witness could give no particular reason for the existence of such a hospital, except that many patients came there who were unable to pay the surgeons' fees, and who objected to being treated at a general hospital. They did not receive the full grant from the Hospital Sunday Fund, on account of the expenses of management being too great. They raised money through appeals in the ordinary way.—By Lord Lauderdale: The hospital consisted of eight rooms, and was taken on a twenty-one years' lease in the name of two of the surgeons, Mr. Bentham, who was since dead, and Mr. Whitmore.—Lord Sandhurst: Do you think that as a general principle the work of a hospital, with an average of nine working beds, could not be undertaken as well in a general hospital?—The Witness: I should very much like to see the work of the Gordon Hospital extended. It meets the wants of those patients who would not go to a general hospital.

Mr. Whitmore, F.R.C.S. Edin., said he started the hospital in view of the great want of such a hospital in London. In answer to the question whether patients could not be treated as well at the general hospital he read the following letter, dated February, 1891, and addressed to the secretary of the hospital:—"I beg, through you, to bring my case under the notice of the Gordon Hospital Committee, and to bear testimony to the very efficient manner in which I was treated at that hospital. In September, 1889, I became ill. Shortly afterwards I entered a hospital here, and underwent an operation, and remained six weeks. In January, 1890, I went into another hospital, where I was again operated on, and was detained nearly twelve weeks, and without receiving any benefit whatever. In May I obtained admission to the Gordon Hospital, where I was operated on for fistula, and where I was under Providence cured."—By Lord Sandhurst: He was not in a position to contrast or criticise the treatment in the general hospitals as compared with the treatment in this hospital. He maintained that the expenses of the paid officials, as compared with other hospitals, were merely nominal, and the hospital itself was in embryo. He had advanced a sum of money for the promotion of the hospital, which he would never bother the committee to repay unless he saw they had sufficient funds. He considered it money well spent.—Lord Kimberley: I asked you whether it was desirable that hospitals should be established on so small a scale that the expenses are too large for the maintenance of the establishment?—The Witness: It appears to me that it is in proportion to the amount of good that is obtained. He was in favour of special hospitals for all diseases; they would not detract from the educational value of the general hospitals. Students could study a subject much better at the head centre of specialism than at the general hospitals if the theory were carried out fully. The large hospitals, he thought, were at present running to seed.—By Lord Cathcart: The name "Gordon" was not given as a name with which to entice the public, but because it was considered a good name by the committee.

On the Committee resuming on Thursday,

Mr. Frederick Wallace, L.R.C.P., M.R.C.S., a general practitioner in Shoreditch, gave evidence to the effect that the establishment of the provident dispensary department of the Metropolitan Hospital at Shoreditch had damaged the practitioners in that district. He represented a number of general practitioners in that district who considered that it was in no way intended when the hospital was established that there should be attached to it this provident dispensary. It had undoubtedly produced serious consequences among the practitioners in the neighbourhood. He complained of those dispensaries which were conducted by qualified men acting as assistants to another medical man who had perhaps as many as twenty or twenty-five of these establishments. He thought it must pay, as it had gone on now for some years. They were called 1*s.* a week dispensaries. His objection to them was that the advice was inferior, and that it in many cases led to the offence called "covering." He presented a book in which he had collected various handbills advertising these dispensaries. The advertisements were issued by qualified men, but the cases coming to the dispensary were sometimes left to be attended by unqualified men. He mentioned the name of a medical man who had a large number of these dispensaries, but he believed they were attended by properly qualified medical men. He objected to such establishments, because these medical men were constantly leaving this employment, and frequent changes were bad for the patient, and because they tended to sweat the profession.—Lord Thring: Does not the very number of these dispensaries show that they supply a public want?—The Witness: I think there is a public want of a properly organised provident scheme.—Lord Thring: But supposing that a man has twenty-five dispensaries handled by properly qualified men for the benefit of the public, what more do you want?—The Witness: They cut into the local general practitioner and sweat him.—Lord Thring: In other words, it is competition.—The Witness: It is competition that we consider to be unfair.—Lord Thring: Why can't you set up opposition dispensaries?—The Witness: We could not do that. I should be very sorry to start a shilling dispensary.—Lord Thring: It would be *infra dig?*—The Witness: Certainly. If the patients got the full value for their money I should not have much to say against them.—Lord Thring: Does it not amount to this, that it is a professional objection; that a certain class of men advertise in a way that is not thought consistent with the dignity of the medical profession?—The Witness: Yes.—Lord Lauderdale: Do you suggest that doctors should not be allowed to advertise, or what? Is the present law regarding qualified assistants not properly enforced?—The Witness: That is so. I would like to see it enforced. The General Medical Council had prosecuted only a few of the cases of covering because of the difficulty there was in obtaining sufficient evidence. Personally, he did not think it was worth his while to obtain this evidence.—By Lord Monkswell: The reason why he did not go to the General Medical Council in this matter was simply that it would be extremely difficult to get at the real facts.

Queen Charlotte's Lying-in Hospital.

Mr. G. O. M. Ryan, the secretary of the hospital, gave an account of the arrangements, income, and expenditure of the hospital. The nursing arrangements were also detailed.

William Hope, M.D., M.R.C.P., M.R.C.S.Eng., senior physician to the hospital, said that the evil reputation which the hospital had fifteen years ago was due to its insanitary condition and the want of a knowledge of antiseptics. The mortality in single women was greater than in married ones, probably on account of the very young age of the patients. These patients varied in age from fourteen to twenty-five. They had cases as young as twelve, and to these the shock was very great. Such patients were taken into homes now, where they are very carefully fed and cared for before they come to the hospital. A gentleman named Mr. Bousfield, who had given evidence, had stated that the presence of students was detrimental to lying-in cases. That statement he distinctly repudiated. Since medical students had been in Queen Charlotte's Hospital the mortality had decreased. The patients considered themselves better attended to when medical students were present. He would like to see in all lying-in hospitals a resident medical officer on the regular visiting staff.

London Fever Hospital.

Lord Balfour of Burleigh, the President, said they divided the patients into ward patients and private patients. The ward patients pay three guineas for the whole case, the private patients pay three guineas per week. The families and servants of governors were admitted free. The hospital contracted with large firms for the treatment of their *employés* provided they subscribed to the hospital. His lordship gave an account of the history of the hospital from its foundation in 1802. This hospital at the present time does its work between the two social extremes, and assists those who could pay something. Those who could pay the cost were treated at a less cost to themselves in the hospital than in their own homes. The hospital offered advantages to the sufferer and also to the family in which the case had broken out, as well as to the community by removing a source of danger. All infectious diseases were taken in except small-pox.

Major Christie, the secretary, was examined, and gave particulars of the financial condition of the hospital.

E. O. Hopwood, M.D. Oxon., the resident medical officer, said no nurse had died from infectious disease during his period of office. Day nurses were on duty for thirteen hours and night nurses for eleven hours. The matron was responsible for the conduct of the nurses. She was appointed at a salary of £80, rising to £100 or £120. They could not send out their nurses with advantage to the hospital. The percentage mortality in 1889 from scarlet fever was 1·2, for enteric fever 5·2, diphtheria 17·6. In 1890 the mortality from scarlet fever was 2·3, for enteric fever 9, for diphtheria 4·5, and for measles 5·3. These he considered very low averages, quite 50 per cent. below the average of the Metropolitan Asylums Board hospitals, and he attributed these low averages to the class of patients treated in this hospital.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ANDERSON, JAMES, L.R.C.P., L.R.C.S. Edin., has been appointed Public Vaccinator *pro tem.* for Footscray, Victoria, Australia.

BRETTINGHAM, C. E. SEPPINGS, L.F.P.S. Glasg., has been appointed Medical Officer of Health for the Eastern Division of the Williton Union.

BROWN, WM. H., M.R.C.S., has been appointed Medical Officer for the portion of the Colac Shire south of the boundary of the Counties of Polwarth and South Grenville, Victoria, Australia.

BURTON-FANNING, F. W., M.B. Cantab. (formerly known as F. W. Burton), has been appointed Honorary Physician to the Norfolks and Norwich Hospital, Norwich.

CARDWELL, THOMAS, L.R.C.P. Edin., M.R.C.S., has been appointed Medical Officer for the Ropsley District of the Grantham Union, vice Moore.

CLIBBORN, WM., M.D., L.R.C.S. Irel., has been appointed Surgeon to the Police Force, Bridport, vice Evans, deceased.

DOOLAN, DENIS, L.R.C.P., L.R.C.S. Edin., has been appointed Public Vaccinator for North Carlton, Victoria, Australia.

DOWLING, J. E., M.D. Irel., L.R.C.S. Edin., has been appointed Medical Officer for the Tuam Workhouse, vice Turner, deceased.

EALES, G. YOUNG, M.R.C.S., L.R.C.P. Edin., has been appointed Honorary Physician to the Western Hospital for Consumption, Torquay, vice Dr. Wills, resigned.

ELAM, W. H., F.R.C.S. Eng., has been appointed Surgeon to the Cancer Hospital, Brompton.

ELLIOTT, E., L.R.C.P. Edin., M.R.C.S., has been appointed Public Vaccinator for the Bromsgrove District and Workhouse of the Bromsgrove Union, vice Kidd.

FOSTER, MICHAEL G., M.A., M.B. Camb., has been appointed Physician to the Kursaal Maloja (Upper Engadine).

FOX, GEORGE MARTIN, L.R.C.P. Lond., M.R.C.S., L.S.A., has been appointed Medical Officer and Public Vaccinator for the Willenhall District of the Wolverhampton Union.

FULTON, T. J. K., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Public Vaccinator for the Surrey Hills and Doncaster, Victoria, Australia, vice Perceval, resigned.

GAMGEE, LEONARD PARKER, M.R.C.S., L.R.C.P., has been appointed House Surgeon to the Queen's Hospital, Birmingham.

GUNN, A. L., L.R.C.P. Edin., L.F.P.S. Glasg., has been reappointed Medical Officer for Swinefleet, Whitgift, and Ousefleet Sanitary Districts, vice Bruce.

GUTHRIE, L. G., M.A., M.B. Oxon., M.R.C.P. Lond., has been appointed Assistant Physician to the Paddington-green Children's Hospital.

HYDE, G. E., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer of Health for the Martley Rural District.

LEWIS, WM. M., M.D., L.K.Q.C.P. Irel., has been appointed Medical Officer for the Shire of St. Arnaud (Donald District), Victoria, Australia, vice Fleming, resigned.

MARSH, RYDING, M.D. Lond., M.R.C.S., has been appointed Honorary Medical Officer to the Brighton, Hove, and Preston Dispensary.

MAY, F. H., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Aston Manor District of the Aston Union.

MORRIS, COLIN DWIGHT, L.R.C.P., L.S.A. Lond., M.R.C.S., has been appointed Medical Officer for the No. 5 District of the Staines Union.

OWEN, H. E., L.R.C.P. Lond., has been appointed Medical Officer for the Eighth and Ninth Districts of the Kingsbridge Union.

PARKES, LOUIS COLTMAN, M.D. Lond., D.P.H., M.R.C.S., has been appointed Medical Officer of Health, Food and Drugs Analyst, and Gas Examiner for the Parish of Chelsea, vice Dr. Seaton, resigned.

REMFRY, LEONARD, M.A., M.D., B.C. Cantab., has been appointed Obstetric Physician to Out-patients at the Great Northern Central Hospital, vice Dr. W. R. Dakin, resigned.

ROBINSON, A. H., M.R.C.S., has been appointed Medical Officer for Wyke and part of the North Bierley Union.

ROWBOTHAM, A. J., M.R.C.S., has been reappointed Medical Officer for the Dunham District of the East Retford Union.

STONEHOUSE, JOHN, L.F.P.S. Glasg., has been appointed Medical Officer for the Second District of the Whitby Union.

STURDEE, A. H., M.R.C.S., has been appointed Medical Officer for the East Riding of the Shire of Mornington, Victoria, Australia.

WARD, W. F., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer for Scrosby, Retford.

WATSON, JOHN W., M.D., M.Ch. Irel., has been appointed Medical Officer for the West Riding of the Shire of Mornington, Victoria, Australia.

WILLIAMS, F. M., D.P.H. Camb., has been appointed Medical Officer of Health for the County Borough and Port of Plymouth.

WILSON, J. S., M.D. Glasg., D.P.H. Camb., has been appointed Honorary Surgeon to the Walsall District Hospital, vice Shore.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BIRMINGHAM CITY ASYLUM.—Resident Clinical Assistant. Board, lodging, &c. No salary.

BIRMINGHAM CITY ASYLUM.—Assistant Medical Officer. Salary £120 per annum, with board &c.

COUNTY OF CAITHNESS.—Medical Officer of Health for the County. Salary £300 sterling, with £50 for travelling and other expenses, except forms and official stationery and postages. (Apply to Mr. Brims, County Clerk, Thurso.)

CAMBERWELL PROVIDENT DISPENSARY, S.E.—Vacancy on the Medical Staff.

CUMBERLAND INFIRMARY, Carlisle.—House Surgeon for one year. Salary £70 per annum, with board, lodging, and washing.

CANCER HOSPITAL (FREE), Fulham-road, S.W.—Honorary Pathologist.

CANCER HOSPITAL (FREE), Fulham-road, S.W.—Surgeon.

CANCER HOSPITAL (FREE), Fulham-road, S.W.—House Surgeon, Assistant House Surgeon and Registrar for six months. Salary at the rate of £60 and £50 a year respectively, with board and residence.

CITY OF LONDON LUNATIC ASYLUM, Stone, near Dartford, Kent.—Clinical Assistant for six months. Board, lodging, washing, and attendance.

FARRINGDON GENERAL DISPENSARY AND LYING-IN CHARITY, 17, Bartlett's-buildings, Holborn, E.C.—Honorary Physician.

NORWICH CITY ASYLUM, Hellesdon, near Norwich.—Assistant Medical Officer for one year, in-door. Board, lodging, and washing. Salary £100 per annum.

TORBAY HOSPITAL AND PROVIDENT DISPENSARY, Torbay.—Junior House Surgeon and Dispenser.

Births, Marriages, and Deaths.

BIRTHS.

BAUMGARTNER.—On April 23rd, at Saville-place, Newcastle-on-Tyne, the wife of Henry S. Baumgartner, M.B., of a daughter.

GILPIN.—On April 24th, at Bengeworth, Evesham, the wife of R. Harrison Gilpin, L.R.C.P. Lond., M.R.C.S., L.S.A., of a daughter.

LAMBERT.—On April 25th, at Balgowan, Newland, Lincoln, the wife of Frederick Samuel Lambert, M.R.C.S., L.R.C.P. Lond., of a daughter (prematurely).

LANGHORNE.—On February 28th, at Millicent, S. Australia, the wife of T. Grant Langhorne, M.R.C.S., L.R.C.P., of a daughter.

MACDONNELL.—On April 23rd, at Gledhow-gardens, South Kensington, the wife of Mark Antony MacDonnell, M.D., of a son.

NICHOLLS.—On April 23rd, at The Moat, Eastbourne, the wife of Howard Hill John Nicholls, M.R.C.S., of a son.

POPE.—On April 26th, at Broomsgrove Villa, Goldhawk-road, W., the wife of H. Campbell Pope, M.D. Lond., F.R.C.S., of a daughter.

TURNBULL.—On April 26th, at Ladbroke-grove, W., the wife of George Lindsay Turnbull, M.A., M.B., of a daughter.

WALKER.—On April 26th, at Grove House, Lowestoft, the wife of Henry Bournes Walker, Surgeon, of a son (stillborn).

WOOD.—On April 21st, at Lees Lodge, Yalding, Kent, the wife of E. J. Wood, M.B. Cantab. &c., of a daughter.

MARRIAGES.

FAWSSETT—SPRINGETT.—On April 23rd, at the Parish Church, Hawkhurst, Frank Fawssett, M.B., B.S. Lond., of Lewes, Sussex, to Margaret Louisa, eldest daughter of the late Augustus Springett, Esq., of Ashfield, Hawkhurst, Kent.

MURRAY-AYNSLEY—KEY.—On April 27th, at Christchurch, New Zealand, John Henry Murray-Ainsley, M.R.C.S., L.R.C.P. Lond., eldest son of H. P. Murray-Ainsley, Esq., of Christchurch, to Elizabeth Anderson, only daughter of Andrew Key, M.D., of Montrose, N.B. (By cable.)

PARKINSON—PILLMAN.—On April 27th, at Christ Church, Morningside, Edinburgh, by the Rev. C. M. Black, B.D. T.C.D., Thomas Wright Parkinson, M.B., C.M., third son of the late T. H. Parkinson, of Kaituna, Canterbury, New Zealand, to Euphemia Jessie, eldest surviving daughter of Mervyn Pillman, Tossberry, Nile Grove. (Australian and New Zealand papers please copy.)

PILKINGTON—LLOYD.—On March 18th, at St. Clement's Church, Mossman's Bay, Sydney, by the Rev. Ernest Claude Beck, Francis Sergent Pilkington, L.R.C.P. Lond., M.R.C.S. Eng., youngest son of the late F. S. Pilkington, Leyland, Lancashire, to Marie, third and only surviving daughter of the late W. Griffiths Lloyd, of Cerrig-y-Druidion, North Wales.

DEATHS.

BROWNE.—On April 18th, at Wentworth House, Aldbrough, Hull, after a brief illness, William Henry Browne, L.R.C.S., L.R.C.P. Edin., aged 50.

CAWTHORNE.—On April 23rd, at Birkwood, Weston, Bath, Benjamin Cawthorne, M.R.C.S. Eng., aged 70.

HENSLEY.—On April 21st, at Circus, Bath, Henry Hensley, M.D., aged 73.

KAY.—On March 23rd, 1891, at Avoca House, Victoria Coy., Natal, S. Africa, of acute meningitis, in her 16th year, Janet McKinlay Kay, sixth daughter of John McIntyre, M.D., formerly of Rotherfield, Sussex, England.

TRULL.—On April 24th, John Trull, M.D., of New Brighton, Cheshire, aged 85.

TULK.—On April 25th, at Forest Prospect, Tunbridge Wells, Alfred Tulk, M.R.C.S., F.L.S., aged 71.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

BOOKS ETC. RECEIVED.

A. ALVAREZ Y COMPANIA, Habana.

Premier Congreso Medico-Regional de la Isla de Cuba, celebrado en la Habana en enero de 1890. pp. 600.

Consideraciones Medico-legales acerca de la Muerte por la Electricidad Industrial. Por Eduardo F. Pla. 1891.

BLACK, ADAM & CHARLES, London.

An Introduction to the Study of Mammals, Living and Extinct. By W. H. Flower, C.B., F.R.S., and Richd. Lydekker, F.G.S., F.Z.S. 1891. pp. 763.

BLACKIE & SON, Old Bailey, London.

Blackie's Elementary Text-books: Elementary Chemistry. By Jerome Harrison, F.G.S. 1890. pp. 144.

CHURCHILL, J. & A., New Burlington-street, London.

A Short Dictionary of Medical Terms; being an Abridgment of Mayne's Vocabulary. 1891. pp. 160.

The Proclivity of Women to Cancerous Diseases. By H. Snow, M.D. Lond. 1891. pp. 58.

DAVIS, F. A., Philadelphia and London.
Fever; its Pathology and Treatment by Antipyretics. By H. A. Hare, M.D., B.Sc. 1891. pp. 166. Price 6s.

GRIFFIN, C., & Co., Exeter-street, Strand, London.
Year-book of the Scientific and Learned Societies of Great Britain and Ireland. Eighth Annual Issue. 1891. pp. 219.

LONGMANS, GREEN, & Co., London.
A Dictionary of Applied Chemistry. By T. E. Thorpe, B.Sc. Vict., Ph.D., F.R.S. In Three Volumes. Vol. II: Eau—Nux. 1891. pp. 714. Price 2 guineas.
The Watering-places of the Vosges. By H. W. Wolff. With a Map. 1891. pp. 158. Price 4s. 6d.

PENTLAND, YOUNG J., Edinburgh and London.
Pulmonary Tuberculosis, Etiological and Therapeutic. By R. W. Philip, M.A., M.D., F.R.S.E. 1891. pp. 55.

SMITH, ELDER, & Co., Waterloo-place, London.
Collected Contributions on Digestion and Diet. By Sir William Roberts, M.D., F.R.S. 1891. pp. 261.

VOGEL, E. D., Easton, Pennsylvania.
The Modern Antipyretics; their Action in Health and Disease. By Isaac Ott, M.D. 1891. pp. 52.

WOOD, WM., & Co., New York.
Text-book of Bacteriology. By C. Fraenkel, M.D. Translated and Edited by J. H. Linsley, M.D. Third Edition. 1891. pp. 376.
Practical Treatise on Electricity in Gynæcology. By E. H Grandin, M.D., and J. H. Gunning, M.D. Illustrated. 1891. pp. 171.

Über Echinokokkus der Pleura; von Professor Dr. Carl Maydl (Josef Safar, Wien, 1891). — Report on the State of the Blood and the Blood-vessels in Inflammation; by T. Wharton Jones, F.R.S. (Baillière, Tindall, and Cox, London, 1891); price 2s. 6d. — Le Remède de Koch; par H. W. Middendorp (J. B. Baillère et Fils, Paris, 1891).—Handels-Bericht; von Gehe & Co. in Dresden-Neustadt, April, 1891 (C. C. Meinhold & Söhne, Dresden)—De l'Empyème Latent de l'Antre d'Highmore; par le Dr. J. M. Jeanty (Feret et Fils, Bordeaux, 1891).—Die Blennorrhöe der Sexualorgane und ihre Complicationen; dargestellt von Dr. E. Finger (F. Deuticke, Leipzig und Wien, 1891).—Index Medicus, Authors and Subjects, Vol. XIII., No. 3, March, 1891; also Index to Vol. XII. (Trübner & Co., and Lewis, London).—Problems in Cardiac Pathology: Thesis for the Degree of M.D. Oxon.; by F. J. Smith, M.B., M.R.C.P., F.R.C.S. — Archives of Surgery; by Jonathan Hutchinson, LL.D., F.R.S., Vol. II., No. 8, April, 1891 (J. & A. Churchill, London); price 2s. 6d.—Étude Historique sur les Organes Génitaux de la Femme; par G. Peillon, M.D. (C. Berthier, Paris, 1891).—Beitrage zur Augenheilkunde; herausgegeben von Professor Dr. R. Deutschmann; Heft II. (Leopold Voss, Hamburg und Leipzig, 1891).—Wilson's Legal Handy Books: The Law of Wills; by C. E. Stewart, Barrister-at-Law; second edition (Effingham Wilson & Co., London); price 1s. 6d.—Beiträge zur Pathologie und Therapie der Gallenstein Krankheit; von Dr. F. Kraus-Karlsbad (A. Hirschwald, Berlin, 1891).—El Método de Koch en las Tuberculosis Locales; por el Doctor Diogenes Decoud (Jacobo Peuser, Buenos Aires, 1891).—The Cabinet Portrait Gallery, Part XX. (Cassell & Co., Limited, London); price 1s.—Book of Surgical Instruments (Maw, Son, & Thompson, Aldersgate-street)—Proceedings of the Society for Psychical Research, April, 1891 (Kegan Paul, Trench, & Co., London); price 2s. 6d.—Transactions of the Obstetrical Society of London, Vol. XXXII., for the year 1890 (The Obstetrical Society, Hanover-square, London); price 5s.—The Verulam Review, April—June, 1891 (E. Stock, Paternoster-row, London); price 1s.—Magazines for May: Good Words, Sunday at Home, Leisure Hour, Sunday Magazine (Isbister); Boy's Own Paper, Girl's Own Paper (Religious Tract Society); Scribner's.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at midnight on April 28th, 1891.

Hospital.	Beds occupied. Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.	Total.	Total accommodation.
Eastern Hospital	158	50	..	37	2	247	442
North-Western Hospital	129	39	..	12	1	181	448
Western ,,	145	19	..	14	1	179	224
South-Western ,,	140	33	..	12	1	186	340
South-Eastern ,,	167	17	..	19*	2	205	462
Northern ,,	159	13	..	6	..	178	480
Totals	898	171	..	100	7	1176	2391

SMALL-POX.—*Atlas* hospital ship, 18.

* Infant with mother.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, April 30th, 1891.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Apr. 24	30·17	E.	45	42	94	57	37	..	Bright
,, 25	30·17	E.	44	41	75	51	40	..	Overcast
,, 26	30·05	N.E.	44	40	87	53	37	..	Cloudy
,, 27	29·82	E.	44	43	105	61	37	..	Hazy
,, 28	29·53	S.E.	57	47	103	66	44	..	Hazy
,, 29	29·81	S.W.	51	43	68	56	42	..	Cloudy
,, 30	29·69	S.W.	56	50	112	65	44	..	Cloudy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

A POISONOUS SPIDER.

MR. ANDREW ROSS, M.P., practising in New South Wales, writes:—

"It has generally been supposed that spiders are very harmless insects, and totally void of any dangerous or poisonous effects; but the history of the following remarkable case tends to establish quite a contrary opinion. About 6 o'clock in the evening of Jan. 24th, a boy of about five years of age was sitting on the doorstep eating some bread-and-butter, when all of a sudden he cried out and complained to his mother that something had bitten him on the neck behind the lobe of the ear. The boy at once pulled his hat off his head and threw it on the ground, and the mother, on picking it up to see if anything was inside, dislodged a large black spider with a large round belly and red spot on the back, which she instantly killed. The boy said the spider had bitten him, and very shortly after he commenced to scream with pains in his neck and also running down his legs and feet. He was brought to my surgery, and on examining the neck I found a large erythematous circle at the spot where the spider was supposed to have bitten him, which I scarified and bathed with the usual remedies. I administered ammonia and brandy, but the child continued to scream with pain. The case continued under my care for a week, and is one of so singular and remarkable a character, and surrounded with symptoms and sufferings so amazingly violent and peculiar, that I deem it my duty to lay the full history of the case before the public as a warning to beware of such supposed innocuous insects."

THE NURSE-TRAINING SCHOOLS AND THE ROYAL BRITISH NURSES' ASSOCIATION.

To the Editors of THE LANCET.

SIRS,—At a meeting of the Royal British Nurses' Association, held on the 14th of this month, the proceedings of which have been reported in several of the daily papers, more than one of the principal speakers, including the chairman and honorary secretary, spoke in strong terms of the persecution which, as they allege, this Association suffered at the hands of the Nurse Training Schools and their representatives, and complain that this opposition aimed, amongst other things, at rendering the presidency of Her Royal Highness the Princess Christian impossible, and at preventing Lady Bloomfield's pension fund for nurses being handed over to it.

It would be making too great a demand on your space to ask the use of your columns, and at the present moment this seems hardly necessary, to discuss at length the grounds of the opposition of the Nurse Training Schools and large hospitals to that which is the main object of the Royal British Nurses' Association—viz., the formation and control of a general register of nurses, having an authoritative character, or to dwell upon the evils both to the public and to nursing which they foresee as the consequence, inasmuch as in all probability the matters in dispute will have to be fought out before the President of the Board of Trade.

But meanwhile we, the representatives of the leading Nurse Training Schools, feel it our duty to protest against the charge of using "secret means," and the term "persecution" being applied to the actions of the bodies we represent. It is to the Nurse Training Schools that the great advance which has taken place during the past thirty years in the quality of nurses and nursing and in the position of nurses is wholly due, and it is to these that we must look in the future for the maintenance of the high standard of excellence which has been thus attained.

Can it be seriously, then, charged against the authorities of these schools, all of whom have worked in the interests of nurses and of nursing, and many have devoted themselves to the subject for years, and are themselves trained nurses, that they are the persecutors of nurses, or that they are perversely opposing schemes which are "obviously for the advantage of the nursing profession."

They do not oppose, and never have opposed, the formation of any institution established for the purpose of thrift, mutual benefit, or of social intercourse, but believing, as they do for reasons which they have elsewhere fully explained, that the establishment of such a Register and the granting by such a body as the Royal British Nurses' Association of certificates of competency to nurses will be detrimental to the interests of nurses and misleading to the public and medical profession, they certainly have opposed and will continue to oppose the attempt of the Association to obtain from the Board of Trade the privilege which it seeks, and by which a "legal status" would be accorded to it.

With regard to the Lady Bloomfield Fund, not one single word has been said by the nurse training schools or hospitals on the subject. The Lady Bloomfield Fund has a most distinct and valuable object in view, and, with her ladyship as its head and under the guidance of his Grace the Duke of Westminster, will without doubt be most successfully and carefully managed; whether its transference to any other association would be wise or not can only have been brought into the discussion for the purpose of diverting attention from the real question at issue.

While recognising in full the great interest taken by Her Royal Highness the Princess Christian in the welfare of nurses and its value to nurses, they cannot but regard the manner in which Her Royal Highness's name has been introduced into the discussion as wholly uncalled for and unworthy of the spirit of fair discussion.

WESTMINSTER, President of Metropolitan and National Association and Westminster Hospital and Training School.
RUTHERFORD ALCOCK, Vice-President Westminster Hospital and Training School.
HARRY VERNEY, Chairman of the Council of the Nightingale Fund.
J. G. WAINWRIGHT, Treasurer of St. Thomas's Hospital.
E. H. LUSHINGTON, Treasurer of Guy's Hospital.
E. M. IND, Chairman of the London Hospital.
H. WACE, Chairman of Committee of Management, King's College Hospital.
W. RATHBONE, President of the Liverpool Training School and Home for Nurses.

To the Editors of THE LANCET.

SIRS,—We, the undersigned, regret to find it necessary to call the attention of the public to the following facts:—

At the present moment any woman—even if she is destitute of knowledge or of character, or of both—can term herself a trained nurse, and can obtain employment in that capacity. There is, moreover, no means of preventing any certificated nurse who has proved herself unworthy of trust from continuing her occupation. It is unnecessary to point out the danger to the sick involved in this state of affairs. Three years ago the Royal British Nurses' Association was founded "in order to unite nurses for their mutual help and protection, and for the advancement in every way of their professional work." It has been already joined by many influential medical men, by the matrons of 150 important English and colonial hospitals, and by nearly 3000 nurses. Its primary object has been to compile and issue a Register of Trained Nurses, the first annual volume of which has just been published, and can be obtained through any bookseller, or from the offices of the Association. It contains the names of 1700 nurses, their addresses, and the place and length of the hospital training which each has received. These women have voluntarily applied for enrolment, and their certificates of technical knowledge and personal character have been carefully scrutinised by the influential Board appointed by the Association for the purpose. If any one of these nurses hereafter proves to be unworthy of confidence, her name can at once be removed from the Register.

The Association only deals with nurses who have completed their training. It does not therefore in any way interfere with the Nurse Training Schools.

We greatly regret that some hospital authorities and a few private individuals, misapprehending the objects of the Association, have exhibited their opposition to the system of registration by most unusual methods. Many nurses have been prevented from joining the Association, or have been compelled to resign their membership. Its members have been persistently assailed in print. A simple proposal to incorporate the Association under the Companies Acts, in order that it may take over and administer trust funds, has now been seized upon to send broadcast over the country documents marked "Private and Confidential," requesting the committees of provincial hospitals to oppose the Association. Failing any other opportunity of meeting such attacks, we are compelled to call public attention to the matter, and to express our very decided conviction—

(1) That the sick should be protected from ignorant and untrustworthy nurses.

(2) That nurses have a perfect right to demand that their calling shoul be cleared, as far as possible, from those who now discredit it and them.

(3) That the registration of nurses as carried out by the Association would accomplish that end, exactly as the registration of members of other callings has proved to be of similar advantages to them.

(4) That the Royal British Nurses' Association, therefore, deserves the most earnest support of the public and the medical profession.

(5) That the nurse training schools, which have no control over those who are not in their service, have no legal or moral right to prevent nurses from enrolling their names upon a register if they choose to do so. Nor have they any possible right to prevent the sick being protected in any measure, however small, from the acknowledged dangers to which they are at present subjected.

We are, Sirs, your obedient servants,

WM. S. SAVORY.
T. SPENCER WELLS.
RICHARD QUAIN.
JAMES CRICHTON BROWNE.
J. FAYRER.
DYCE DUCKWORTH.
EDWARD H. SIEVEKING.
ALFRED GARROD.
EDWIN SAUNDERS.
R. DOUGLAS POWELL.
WM. CAYLEY.
A. PEARCE GOULD.
SIDNEY COUPLAND.
ANDREW CLARK (F.R.C.S.)
OCTAVIUS STURGES.
F. W. PAVY.
N. DAVIES-COLLEY.
ROBERT BARNES.
T. PICKERING PICK.
R. BRUDENELL CARTER.
W. B. CHEADLE.
G. ANDERSON CRITCHETT.
HERBERT W. PAGE.
THOMAS BUZZARD.
ARTHUR E. BARKER.
WM. O. PRIESTLEY.
F. J. GANT.
HARRINGTON SAINSBURY.
CHAS. GAGE-BROWN.
WYNN WESTCOTT.
W. BEZLY THORNE.
SEPTIMUS W. SIBLEY.
ALFRED T. SCHOFIELD.
LOVELL DRAGE.
EDWD. A. FARDON.
EDGAR WILLETT.
BEDFORD FENWICK.

April 28th, 1891.

THE METROPOLITAN HOSPITAL INQUIRY.

To the Editors of THE LANCET.

SIRS,—The evidence given before the Select Committee in the above inquiry has been abundantly interesting, and will doubtless be ably summarised in THE LANCET at the conclusion of the investigation. I wish, however, to draw attention to that part of Mr. Hurry Fenwick's evidence where, after stating he was associated with both St. Peter's and the London Hospitals, he says, "it was his habit to draft patients from the general to the special hospital." Further on the same witness states, with commendable frankness, that "Special hospitals withdrew from consulting members of the profession a great amount of special material useful for their own experience and for *teaching purposes*"; that "they affected other members of the profession in a monetary way."

Now, I think most private practitioners are painfully alive to the truth of the latter paragraph, and I would only add to it by affirming that general practice is rapidly losing its interest by the craze for specialists which the creation of special hospitals has given rise to. I wish, however, to ask how can a general hospital pretend to give a complete education to its students in return for the fees paid, when the authorities allow an important class of cases to be drafted to a special hospital six or seven miles away? It is bad enough for the general practitioner to suffer in income from the present state of things, and in much of the pleasure in his work, by the absorption of cases by "specialists." But to deprive the student of clinical material to feed a distant special hospital would seem to be a distinct breach of contract.

I am, Sirs, yours obediently,
April, 1891. PATERFAMILIAS.

MICROSCOPICAL WORK.

To the Editors of THE LANCET.

SIRS,—No doubt there are many young gentlemen who are better versed in microscopical work than old men, and could kindly give a few instructions, as just now there is a bacteriological "craze" going on in the profession. Having furnished myself with a new microscope, I find that I cannot work satisfactorily the "immersion lens." I went up to London the other day, thinking the maker could give me the necessary information, but was surprised he could not do so. How much oil should be put in? Should the lens be cleaned every day? Should the aperture in the diaphragm be large or small for a 1-12th lens? What distance should the lens be from the top of the mica cover? Any other information I should esteem an obligation, as it is a hard matter for a lad to have a toy and not be able to use it.—Yours truly,

April 27th, 1891. M.B.

DISTRIBUTION OF TESTIMONIALS.

M.B.—It is a most unprofessional practice to send testimonials round a neighbourhood, and it is even worse to send them directly to the known patients of other medical men. We are speaking on an *ex parte* statement of the case, but if the gentleman who does so has no explanation to offer, or apology, it would be justifiable to decline professional relations with him.

Mr. Barling (Hartshill).—Yes, shortly.

MEDICAL WORK ON BOARD SHIP.

To the Editors of THE LANCET.

SIRS,—A French colleague of mine, a *médecin de marine*, wants to know of the best work in English on the *rôle* of the naval surgeon, and especially on the different methods of transport of the wounded on board a man-of-war in action. Any information on this head would greatly oblige,

Your obedient servant,
Paris, April 29th, 1891. J. H. BARNARD, M.D.

MEDICAL RELIEF ORDERS.

THE *Bury and Norwich Post* of April 21st contains the report of a long discussion at the Thetford Board of Guardians, based on a complaint of Mr. Minns, one of the medical officers, that his orders for relief were not regarded by the relieving officer. Two cases in particular were stated. The reply of the relieving officer was that Mr. Minns ordered much more meat than the other medical officers, that one of the orders came on a Sunday, and that in the course of seventeen years' office he had never been troubled by such orders on a Sunday. The guardians sided with the relieving officer. They pointed out to Mr. Minns that his orders were only recommendations, and that in the long run the responsibility of refusing to give what is ordered rests with the relieving officer. It is very trying to medical men to witness the misery of sickness intensified by want, not less so on Sundays, and to be met by an unsympathetic relieving officer. Meantime, all that Mr. Minns can do he has done.

THE CLERGY AND HOSPITAL ABUSE.

To the Editors of THE LANCET.

SIRS,—At the present time, when so much interest is taken in the question of hospital abuse, it may be well to consider whether the clergy are not in a small degree responsible for such abuse. Speaking from my own experience, I am driven to the conclusion that they are, unwittingly perhaps, assisting to pauperise the public. "Why not take your child to Victoria-park?" "If I were in your place, I should go to the Throat Hospital." "Why do you have this operation (for fistula) done at home, when there are special hospitals for such cases?" Such are the remarks made to patients by various reverend gentlemen, followed in too many instances by the offer of the necessary hospital letter. A patient of mine, in comfortable circumstances, told me that she was so urged to go to Brompton that she finally accepted the proffered letter, and went to the hospital once, just to "pacify" the clergyman. The medicine and cod-liver oil were thrown away.

Now, I believe our clerical friends are acting with the very best intentions; but unfortunately, they have not a due appreciation of their responsibility in this matter. I wish something could be done to make quite clear two facts: (1) That the distribution of hospital letters is a most important trust confided to them, and (2) that to give hospital letters to those who are well able to pay for medical attendance is a gross abuse of this important trust.

Yours faithfully,

Hatcham, S.E., April, 1891. E. F. BINDLOSS.

DISINFECTION AFTER DIPHTHERIA.

To the Editors of THE LANCET.

SIRS,—Will you kindly answer the following inquiry in your next issue? Is it absolutely necessary to thoroughly disinfect a room after being occupied by a diphtheria patient?—Yours faithfully,

April 25th, 1891. APPETITUS RATIONI PARENT.

*** In the present state of our knowledge as to the natural history and tenacity for life of the diphtheria bacillus, it is extremely difficult to declare any process of prevention to be "absolutely necessary" in all circumstances. But we know enough to indicate that the infection clings to premises and to clothing &c., and therefore adequate disinfection ought, in our opinion, not to be omitted as one of the precautions against the further spread of diphtheria.—ED. L.

MANAGEMENT OF METROPOLITAN HOSPITALS.

To the Editors of THE LANCET.

SIRS,—In *The Times* of this date I read as follows:—"Dr. Hurry Fenwick, a member of the staff of St. Peter's Hospital for Stone, advocated the licensing of all hospitals by a board composed of the leading members of the medical profession who had the interests of these institutions at heart." Were this excellent suggestion adopted, I apprehend that St. Peter's Hospital would be one of the first to be closed. The general hospitals would be only too glad to provide accommodation for all these cases, and the students' education would be rendered the more complete by their seeing them under treatment in the clinical wards. I am, Sirs, yours obediently,

April 24th, 1891. MANAGEMENT.

INHALERS FOR USE IN PRODUCING ANÆSTHESIA.

To the Editors of THE LANCET.

SIRS,—The great advantage claimed by Mr. Duke in your issue of to-day for his chloroform inhaler, that "the respiration causes the valves through which the air must pass to produce a sound audible to the administrator," was the main feature in the inhaler that was devised by my father for ether in 1847, the year before chloroform was introduced. I am, Sirs, yours faithfully,

Harley-street, W., April 25th, 1891. HEYWOOD SMITH.

IODIDE OF GOLD IN PHTHISIS.

To the Editors of THE LANCET.

SIRS,—Will any brother practitioner who has tried the above be good enough to give the profession the benefit of his experience?

I am, Sirs, yours obediently,

April 27th, 1891. G. P.

Medical Diary for the ensuing Week.

Monday, May 4.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Great Ormond-st.: 4 P.M., Dr. W. B. Cheadle: Errors of Feeding and Food Diseases of Childhood.—Royal London Ophthalmic Hospital, Moorfields: 1 P.M., Mr. R. M. Gunn: External Examination of the Eye.

ROYAL INSTITUTION.—5 P.M. General Monthly Meeting.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN (40, Leicester-sq., W.C.).—8 P.M. Mr. D. E. N. Caush: Exostosis (with microscopic slides and photographs). Casual Communications:—Mr. J. Bland Sutton: Odontome in a Horse.—Mr. Morton Smale: A case of Injury to Temporo-maxillary Articulation at three years and a half causing Closure of the Jaw.—Mr. Stocken: Cases of Absorption of Permanent Teeth.—Mr. David Hepburn: A case of Attrition in the First Dentition.—Mr. C. V. Cotterell: Convertor for Electric Mallet.

SOCIETY OF ARTS.—8 P.M. Mr. Hugh Stannus: The Decorative Treatment of Natural Foliage. (Cantor Lecture.)

MEDICAL SOCIETY OF LONDON.—Annual Conversazione. Oration at 8.30 P.M., by Sir Joseph Lister, on the Coagulation of the Blood in its Practical Aspects.

Tuesday, May 5.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic operations, 4 P.M.; Friday, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday 2.30 P.M. Skin Department, Monday and Thursday, 2.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electrotherapeutics, same day, 2 P.M.

LONDON POST-GRADUATE COURSE.—Bethlem Hospital: 2 P.M., Dr. Percy Smith: Hypochondriasis and Melancholia.—Hospital for Skin Diseases, Blackfriars (the lecture will be delivered at the Examination Hall, Victoria Embankment): 5 P.M., Mr. J. Hutchinson: On Raynaud's Disease and Allied Affections.

ROYAL INSTITUTION.—3 P.M. Dr. Edward E. Klein: Bacteria, their Nature and Functions. (Tyndall Lecture.)

SOCIETY OF ARTS.—8 P.M. Capt. Buchan Telfer: Armenia and the Armenians.

PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Dr. S. Delépine: Melanomycosis of Skin.—Dr. J. S. Bristowe: Black Tongue.—Dr. Albert Wilson: The Micro-organism of Diphtheria, with Experimental Results in Animals.—Dr. S. Sharkey: Ulcerative Colitis.—Mr. W. H. Battle: Acute Epiphysitis.—Dr. N. Pitt: Gummatous Meningitis; Gumma of Heart.—Dr. A. F. Voelcker: Tuberculosis of Mediastinal Glands invading Lung.—Mr. E. W. Roughton: Lipoma of Spermatic Cord with Hernial Sac.—Mr. H. B. Robinson: Columnar-celled Carcinoma of Jaw.—Dr. H. D. Rolleston: Myocarditis limited to Right Side.—Dr. F. Payne: Syphilitic Caries of Calvaria in an Infant. Card Specimens:—Mr. A. Doran: Hydronephrosis; Nephrectomy. Mr. J. H. Targett: Symmetrical Hemiatrophy of Gastrocnemius.—Dr. H. D. Rolleston: Necrosis of Skull-cap; Fracture of First Rib. Mr. S. G. Shattock: Bilharzia, Bladder.

Wednesday, May 6.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M. Operations by the Obstetric Physicians on Thursdays at 2 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.

ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.

ROYAL SOCIETY.—Conversazione.

LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. F. T. Roberts: Clinical cases in relation to Physical Conditions and Symptoms.—Royal London Ophthalmic Hospital: 8 P.M., Mr. A. Q. Silcock: Glaucoma.

OBSTETRICAL SOCIETY OF LONDON (20, Hanover-square, W.).—8 P.M. Specimens will be shown by Dr. Lewers, Dr. Godson, and others. Dr. Dakin: Tetany in Pregnancy.—Dr. John Phillips: On a case of Death following Vaginal Injection of Acid Nitrate of Mercury.—Mr. Alban Doran: Sequel to the case of Anterior Serous Perimetritis simulating Ovarian Sarcoma.

SOCIETY OF ARTS.—8 P.M. Mr. E. L. Fleming: The Sources and Applications of Borax.

Thursday, May 7.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

ROYAL INSTITUTION.—3 P.M. Professor Dewar: Recent Spectroscopic Investigations.

LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Great Ormond-st.: 4 P.M., Dr. W. B. Cheadle: Common Errors and Fallacies of Medical Treatment in Children's Diseases.—National Hospital for the Paralysed and Epileptic: 2 P.M., Dr. Tooth: The Diagnosis between Functional and Organic Diseases of the Nervous System.—London Throat Hospital, Gt. Portland-st.: 8 P.M., Mr. W. R. H. Stewart: The Examination of Ear Cases.

HARVEIAN SOCIETY OF LONDON.—8.30 P.M. Mr. J. W. Malcolm: Some Complicated cases of Abdominal Section.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8.30 P.M. Patients and Card Specimens at 8 P.M.—Mr. R. Williams: Arteriovenous Aneurysm of the Orbit.—Mr. George Wherry: Paragensia with Ophthalmoplegia.—Mr. T. Thompson: Emphysema of Conjunctiva.—Mr. Lawford (for Mr. Johnston of Vancouver): Penetration of Eyelash into Anterior Chamber.—Mr. Ernest Clarke: Intrusion of Eyelash into Anterior Chamber.—Dr. P. H. Mules: On Anterior Cerebral and Pyramidal Capsular Cataracts.—Mr. Kenneth Scott: On Perchloride of Mercury in Conjunctival Disease. Card Communications:—Mr. Lawford: Thrombotic Retinitis.—Mr. R. Williams: Dermoid of Cornea.—Mr. Ernest Clarke: Total Absence of Iris.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Adjourned Discussion on Mr. Watson Cheyne's paper on the Value of Tuberculin in the Treatment of Surgical Tubercular Diseases.

Friday, May 8.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. F. T. Roberts: Clinical cases in relation to Physical Conditions and Symptoms.—Bacteriological Laboratory, King's College: 11 A.M. to 1 P.M., Prof. Crookshank: The Microscope for Bacteriological Work (Cover-glass Preparations).—Great Northern Central Hospital: 8 P.M., Dr. Galloway: Heart-Valvular Lesions, with their consequences (demonstration).

CLINICAL SOCIETY OF LONDON.—Mr. Arbuthnot Lane: Two cases of Resection of Intestine by Senn's Method.—Mr. C. J. Symonds: Two cases in which a Sequestrum was removed from the Neck of the Femur without Injury to the Joint; recovery in both, and in one with a perfect joint.—Dr. T. J. Maclagan: Cases of Neuritis and Spurious Arthritis.—Mr. Stephen Paget: A case of Cerebral Abscess twice trephined; Hernia Cerebri; recovery.—Dr. Sidney Phillips: A case of Typhoid Fever with Occlusion of the Femoral Artery during Convalescence, and with Acute Maniacal Attacks.

ROYAL INSTITUTION.—9 P.M. Prof. W. Ramsay: Liquids and Gases.

Saturday, May 9.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

LONDON POST-GRADUATE COURSE.—Bethlem Hospital: 11 A.M., Dr. Percy Smith: Clinical Demonstration.

ROYAL INSTITUTION.—3 P.M. Mr. H. Graham Harris: The Artificial Production of Cold.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. J. W. Ogle; Mr. E. Owen; Mr. W. H. Bennett, London; Dr. Heywood Smith; Dr. Minns, Thetford; Dr. Yule, Guildford; Messrs. Keene and Ashwell; Dr. Bennington, Newcastle-on-Tyne; Messrs. Cooper and Holt; Dr. Dudley, London; Dr. F. Little; Messrs. Richardson and Co., Leicester; Dr. A. Ross, Molong, N.S.W.; Messrs. Hertz and Collingwood; Mr. Kilner, Flimgoe; Rev. Dr. Rigg; Messrs. Oliver and Boyd; Dr. Pocklington, Wimbledon; Messrs. Smith, Elder and Co.; Mr. Heslop, Blackpool; Dr. B. Fenwick; Messrs. Brims and Mackay, Thurso; Mr. Bindloss, Hatcham; Messrs. Kegan Paul and Co.; Mr. Silcock; Dr. Littlejohn, Edinburgh; Mr. Jubb; Mr. Wood White, Birmingham; Mr. Lund, Manchester; Messrs. Oppenheimer and Co.; Mr. Wainwright, London; Dr. Wynter; Messrs. Bryce and Rumpff; Mr. Dobie, Brampton; Mrs. Wallace; Dr. Steeves, Toxteth Park; Dr. J. Adams, Eastbourne; Mr. E. C. Stabb; Messrs. Lane and Co.; Dr. Bond, Gloucester; Dr. Auld, Glasgow; Messrs. Read and Co., Bristol; Dr. L. E. Stevenson, Jedburgh; Dr. Bowden, South Hampstead; Mr. Barling, Hartshill; Dr. Duka; Mr. J. Armstrong, Liverpool; Mr. J. P. Richards; Mr. A. Robottom; Dr. G. M. Gould, Philadelphia; Dr. Zangzer, Zurich; Mr. Jeaffreson, Newcastle-on-Tyne; Dr. Robinson, Huddersfield; Dr. Cooke, London; Mr. Man, Doncaster; Mr. Hornibrook, London; Mr. Mosse, London; Mr. Read, Canterbury; Messrs. Cox, Brighton; Mr. Joy; Dr. A. de Giacoma, Naples; Mr. Bailey, Hampstead; Mr. Murdock, Echuca; Dr. Brewis, Tasmania; Mr. Hemming, Bridgend; Mr. Orr, Dresden; Mr. Beard, Wandsworth; Mr. Sedlmayr; Mr. Webb; Mr. Pennington; Mr. Smith, Brighton; Seniores; G.P.; Paterfamilias; Management; C. Ch.; City Asylum, Norfolk; M.D. Lond, F.R.C.P.; W.; Z.; Omega; Hanover Institute; S. H.; R. L.; L. G. B.; O. F.; Dunelm; M.B.; Bouillon Fleet Co.; An Ex-Priest; Appetitus Rationi Parent.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Nash Dublin; Mr. Earlam, Brewood; Mr. Swain Hitchin; Messrs. Kilner Bros., King's-cross; Dr. Horne, Scarborough; Mr. Langhorne, South Australia; Miss Pratt, Derby; Mr. George, Preston; Messrs. Moat Bros., Belfast; Dr. Warburton, Treherbert; Messrs. Heilgers and Co., London; Mr. Finley, Longford; Mr. H. Waters; Messrs. Cohen and Sons, London; Mr. Lockwood, Huddersfield; Messrs. Drew and Son, Newton le-Willows; Dr. Harding, Whittlesea; Messrs. Watson and Co., Hull; Dr. Liveing; Miss Lloyd, Hawkhurst; Dr. Appleton; Dr. McLauchlan; Mr. Tyte, Minchinhampton; Messrs. James and Williams, Aberdare; Major Leadbetter, Wrexham; Messrs. Smith and Co., Portsea; Mr. Merck, Darmstadt; Mr. Thompson, South Hampstead; Miss Beadon; Mr. Tully, Hastings; Messrs. Roberts and Jones, North Wales; Mr. McKay, Fortrose; Mr. Humphreys, West Ham; Dr. Foster, Winchester; Mr. Rentoul, Kennoway; Mr. Dobbs, Southgate; Dr. Hoffmann, Swansea; Mr. Davis, Sidcup; Dr. Lyon, Durham; Mr. Lamb, Edinburgh; Dr. Mackay, Durham; Mr. Thin, Edinburgh; Mr. Pilkington, Littlemore; Miss Weeks; Mr. Orgers, London; Mr. Maylott, Uxbridge; Mr. Brockelbank; Mr. Cawthorne, Welshpool; Dr. Hunter, Pontypridd; Mr. Holder, Hull; Mr. Selby, London; Mr. Forjett, Caistor; Mr. Davies, Leicester; Mr. Heywood, Manchester; Miss Mathews; Mr. Cochrane, Wigton; Mr. Sergeant, London; Mr. Odell, Torquay; Mr. Pennington, Hyde; Dr. Wilcox, Woolwich; Dr. Osburne, Hythe; Mr. Gilpin, Evesham; Mr. Griffin, Saltburn; Mr. Stephens, Rangoon; Mr. Ernst; Dr. Crombie, Brentford; Mr. Burgess, Sutton; Mr. Christian, Hammersmith; Dr. Still, Loughborough; Mr. Branthwaite, Erdington; Dr. Hales; Dr. Deane, Ellesmere; Dr. Davies, Glamorgan; Alpha; Secretary, Royal Albert Hospital, Devonport; H.; J. D., London; W., Bayswater; Haydock Lodge Retreat; Sister, Plymouth; Adoption; Senex; Hollingbrook House, Littleborough; W. R., London; Theodora; Wolverhampton Infirmary; Secretary, Jerusalem, Clapham; M. F. A.; Secretary, Ocean Accident and Guarantee Corporation; Matron, Manchester; British Syphon Co.: Alpha, London; A. T. T., Norwich; College of State Medicine; X. Y., Abergavenny; Manager, Great Tower-street Tea Co.; Recipe; J. E., Carnarvon; R. M. S.; Mutual Life Assurance Co.; D. P. C.; Syntax; J. W. P.; Medicus, Liverpool; A. B., South Norwood; F. F. F.; A. O; F.; Forceps; Secretary, Royal College of Physicians; Spes; M.D., Liverpool; Statim; Dennayer's Peptone Co.; M. S. A.; Secretary, Royal Infirmary, Manchester.

NEWSPAPERS.—*Dundee Advertiser, Leeds Mercury, Liverpool Daily Post, Methodist Times, Yorkshire Post, Bristol Mercury, Insurance Record, Scottish Leader, Sheffield Independent, Sussex Daily News, Windsor and Eton Gazette, South Wales Weekly News, Liverpool Courier, Glasgow Herald, Worcestershire Echo, Le Temps (Paris), East Anglian Times, Mining Journal, North British Daily Mail, The Newspaper, Scotsman, Surrey Advertiser, Weekly Free Press and Aberdeen Herald, Beckenham Journal, Hertfordshire Mercury, Reading Mercury, La Patria (Rio de Janeiro), Labour World, Windsor and Eton Express, National Press (Dublin), Nursing Record, Worthing Gazette, Baker's Record, Spalding Free Press, Courier de Londres, Bury and Norwich Post, Maidenhead Advertiser, Ormskirk Advertiser, New Zealand Herald, Night and Day, West Sussex Gazette, Warrington Guardian, Greenock Telegraph, Melbourne Argus, The Monist, The Optician, &c.*, have been received.

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